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(21) International Application Number: PCT/US99/24205 (22) International Filing Date: 15 October 1999 (15.10.99) (30) Priority Data: 60/104,435 15 October 1998 (15.10.98) US (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 60/104,435 (CIP) Filed on 15 October 1998 (15.10.98) (71) Applicant (for all designated States except US): GENETICS INSTITUTE, INC. [US/US]; 87 CambridgePark Drive, Cambridge, MA 02140 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): JACOBS, Kenneth [US/US]; 151 Beaumont Avenue, Newton, MA 02160 (US). MCCOY, John, M. [GB/US]; 56 Howard Street, Reading, MA 01867 (US). LaVALLIE, Edward, R. [US/US]; 113 Ann Lee Road, Harvard, MA 01451 (US). COLLINS-RACIE, Lisa, A. [US/US]; 124 School Street, Acton, MA 01720 (US). EVANS, Cheryl [GB/US]; 18801 Bent Willow Circle, Germantown, MD 20874 (US).	MERBERG, David [US/US]; 2 Orchard Drive, Acton, MA 01720 (US). TREACY, Maurice [IE/IE]; 12 Foxrock Court, Dublin 18 (IE). (74) Agent: SPRUNGER, Suzanne, A.; American Home Products Corporation, Patent & Trademark Dept. - 2B, One Campus Drive, Parsippany, NJ 07054 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(54) Title: SECRETED EXPRESSED SEQUENCE TAGS (sESTs)		
(57) Abstract <p>Secreted expressed sequence tags (sESTs) isolated from a variety of human tissue sources are provided.</p>		

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SECRETED EXPRESSED SEQUENCE TAGS (sESTs)**5****FIELD OF THE INVENTION**

The present invention provides novel polynucleotides which are expressed sequence tags (ESTs) for secreted proteins.

BACKGROUND OF THE INVENTION

Gargantuan efforts have been employed by various investigational projects to randomly sequence portions of naturally-occurring cDNAs. The rationale behind this approach to identification and sequencing genes is founded in two basic principles: (1) that transcribed cDNAs represent the product of the most important genes, namely those that are actually expressed *in vivo*, and (2) that efforts to sequence genes and other portions of the genome of target organisms which are not actually expressed wastes substantial effort on areas not likely to yield genetic information of therapeutic importance. Thus, the high-throughput sequencing efforts focus on only those portions of the genome which are expressed. The randomly produced cDNA sequences represent "expressed sequence tags" or "ESTs", which identify and can be used as probes for the longer, full-length cDNA or genomic sequence from which they were transcribed.

Although this "shortcut" approach to genomic sequencing presents savings of effort compared to sequencing of the complete genome, it still produced a vast array of ESTs which may not be directly useful as protein therapeutics. To date, the majority of protein-related drug discovery has focused on the use of secreted proteins to produce a desired therapeutic effect. Since the EST approach theoretically identifies all expressed proteins, it produces an EST library which contains a mixture of secreted proteins (such as hormones, cytokines and receptors) and non-secreted proteins (such as, for example, metabolic enzymes and cellular structural proteins), without identifying which ESTs correspond to proteins falling into either category. As a result, these methods are not optimally tailored to the needs of investigators searching for secreted proteins because they must separate the secreted "wheat" from the non-secreted "chaff", wasting effort and resources in the process.

Co-assigned U.S. Patent No. 5,536,637, which is incorporated herein by reference, provides methods for focusing genomic sequencing efforts on sequences encoding the secreted proteins which are of most interest for identification of protein therapeutics. The '637 patent discloses a "signal sequence trap" which selectively identifies ESTs for secreted proteins, namely "secreted expressed sequence tags" or "sESTs". It is to these sESTs that the present invention is directed.

SUMMARY OF THE INVENTION

The present invention provides for sESTs isolated from a variety of human RNA/cDNA sources.

In preferred embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

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or a complement of said sequence.

In other embodiments, the present invention provides an isolated
 polynucleotide consisting of a nucleotide sequence selected from the group consisting
 10 of:

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or a complement of said sequence.

In further embodiments, the present invention provides an isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

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 15 or a complement of said sequence.

In yet other embodiments, the present invention provides an isolated
 polynucleotide comprising a nucleotide sequence which hybridizes to a sequence
 selected from the group consisting of:

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or to a complement of said sequence.

20 The invention also provides for proteins encoded by the above-described
polynucleotides. In certain preferred embodiments, the polynucleotide is operably
linked to an expression control sequence. The invention also provides a host cell,
including bacterial, yeast, insect and mammalian cells, transformed with such
polynucleotide compositions. Also provided by the present invention are organisms
25 that have enhanced, reduced, or modified expression of the gene(s) corresponding
to the polynucleotide sequences disclosed herein.

Processes are also provided for producing a protein, which comprise:

- (a) growing a culture of the host cell transformed with such
polynucleotide compositions in a suitable culture medium; and
- 30 (b) purifying the protein from the culture.

The protein produced according to such methods is also provided by the present
invention.

Protein compositions of the present invention may further comprise a pharmaceutically acceptable carrier. Compositions comprising an antibody which specifically reacts with such protein are also provided by the present invention.

Methods are also provided for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition comprising a protein of the present invention, and/or a polynucleotide of the present invention, and a pharmaceutically acceptable carrier.

10

DETAILED DESCRIPTION

The nucleotide sequences of the sESTs of the present invention are reported in the Sequence Listing below. Table 2 lists the "Clone ID Nos." assigned by applicants to each SEQ ID NO: in the Sequence Listing.

15 Table 2

Each pair of entries in this table consists of the SEQ ID NO (e.g., 1, 2, etc.) followed by the Clone ID No. for such sequence (e.g., AA239, AA249, etc.).

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20	2	PP9	18	PR113	34	PT141	50	PT214
	3	PP95	19	PR24	35	PT144	51	PT215
	4	PP96	20	PR47	36	PT148	52	PT217
	5	PQ104	21	PR90	37	PT149	53	PT219
	6	PQ109	22	PS46	38	PT150	54	PT228
25	7	PQ114	23	PS48	39	PT159	55	PT230
	8	PQ12	24	PS51	40	PT16	56	PT233
	9	PQ134	25	PS59	41	PT171	57	PT249
	10	PQ15	26	PS66	42	PT179	58	PT259
	11	PQ28	27	PT109	43	PT184	59	PT26
30	12	PQ29	28	PT11	44	PT189	60	PT268
	13	PQ37	29	PT111	45	PT19	61	PT274
	14	PQ59	30	PT115	46	PT195	62	PT282
	15	PQ74	31	PT118	47	PT2	63	PT284
	16	PQ9	32	PT127	48	PT204	64	PT285

	65	PT293	99	PT398	133	PU164	167	PV110
	66	PT295	100	PT403	134	PU165	168	PV119
	67	PT296	101	PT409	135	PU169	169	PV126
	68	PT298	102	PT434	136	PU199	170	PV138
5	69	PT301	103	PT435	137	PU2	171	PV143
	70	PT307	104	PT437	138	PU214	172	PV149
	71	PT31	105	PT442	139	PU220	173	PV16
	72	PT310	106	PT444	140	PU226	174	PV163
	73	PT315	107	PT446	141	PU234	175	PV174
10	74	PT318	108	PT448	142	PU235	176	PV177
	75	PT324	109	PT449	143	PU237	177	PV183
	76	PT326	110	PT450	144	PU258	178	PV192
	77	PT328	111	PT451	145	PU26	179	PV193
	78	PT330	112	PT453	146	PU261	180	PV198
15	79	PT332	113	PT455	147	PU264	181	PV203
	80	PT334	114	PT457	148	PU274	182	PV205
	81	PT343	115	PT464	149	PU276	183	PV210
	82	PT346	116	PT57	150	PU280	184	PV213
	83	PT347	117	PT65	151	PU282	185	PV214
20	84	PT348	118	PT67	152	PU289	186	PV23
	85	PT35	119	PT71	153	PU291	187	PV231
	86	PT354	120	PT82	154	PU307	188	PV235
	87	PT355	121	PT97	155	PU312	189	PV269
	88	PT357	122	PU100	156	PU314	190	PV282
25	89	PT358	123	PU101	157	PU43	191	PV286
	90	PT364	124	PU107	158	PU56	192	PV291
	91	PT365	125	PU113	159	PU61	193	PV294
	92	PT367	126	PU116	160	PU71	194	PV296
	93	PT375	127	PU117	161	PU77	195	PV297
30	94	PT38	128	PU123	162	PU85	196	PV30
	95	PT381	129	PU124	163	PU86	197	PV306
	96	PT383	130	PU134	164	PU89	198	PV313
	97	PT385	131	PU139	165	PU96	199	PV316
	98	PT387	132	PU142	166	PV107	200	PV323

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	202	PV330	236	PV679	270	PW345	304	PW503
	203	PV339	237	PV70	271	PW356	305	PW504
	204	PV343	238	PV700	272	PW359	306	PW508
5	205	PV347	239	PV715	273	PW369	307	PW524
	206	PV35	240	PV72	274	PW370	308	PW528
	207	PV371	241	PV721	275	PW378	309	PW540
	208	PV383	242	PV725	276	PW381	310	PW567
	209	PV390	243	PW102	277	PW394	311	PW587
10	210	PV398	244	PW11	278	PW398	312	PW588
	211	PV439	245	PW114	279	PW4	313	PW60
	212	PV45	246	PW120	280	PW403	314	PW66
	213	PV472	247	PW123	281	PW410	315	PW73
	214	PV475	248	PW159	282	PW417	316	PW75
15	215	PV510	249	PW170	283	PW418	317	PW95
	216	PV511	250	PW186	284	PW422	318	PX100
	217	PV512	251	PW192	285	PW429	319	PX103
	218	PV53	252	PW195	286	PW430	320	PX115
	219	PV534	253	PW214	287	PW435	321	PX125
20	220	PV535	254	PW245	288	PW437	322	PX129
	221	PV548	255	PW26	289	PW445	323	PX135
	222	PV549	256	PW267	290	PW447	324	PX146
	223	PV560	257	PW269	291	PW448	325	PX151
	224	PV58	258	PW27	292	PW452	326	PX155
25	225	PV581	259	PW271	293	PW453	327	PX166
	226	PV585	260	PW288	294	PW459	328	PX169
	227	PV59	261	PW3	295	PW460	329	PX202
	228	PV6	262	PW303	296	PW463	330	PX207
	229	PV623	263	PW311	297	PW471	331	PX223
30	230	PV635	264	PW320	298	PW475	332	PX225
	231	PV64	265	PW328	299	PW482	333	PX51
	232	PV640	266	PW335	300	PW491	334	PX54
	233	PV65	267	PW337	301	PW496	335	PX60
	234	PV662	268	PW341	302	PW498	336	PX73

	337	PX75	371	PZ362	405	QB205	439	QB311
	338	PX94	372	PZ388	406	QB208	440	QB32
	339	PY10	373	Q13	407	QB211	441	QB326
	340	PY133	374	Q153	408	QB212	442	QB344
5	341	PY156	375	Q172	409	QB214	443	QB360
	342	PY16	376	Q303	410	QB216	444	QB370
	343	PY184	377	Q513	411	QB217	445	QB375
	344	PY187	378	Q66	412	QB22	446	QB379
	345	PY195	379	Q691	413	QB221	447	QB389
10	346	PY202	380	Q719	414	QB232	448	QB39
	347	PY215	381	Q725	415	QB235	449	QB393
	348	PY220	382	QA133	416	QB24	450	QB395
	349	PY239	383	QA136	417	QB241	451	QB397
	350	PY251	384	QB10	418	QB242	452	QB401
15	351	PY254	385	QB120	419	QB245	453	QB405
	352	PY256	386	QB122	420	QB246	454	QB44
	353	PY260	387	QB131	421	QB25	455	QB56
	354	PY27	388	QB132	422	QB251	456	QC109
	355	PY34	389	QB135	423	QB252	457	QC113
20	356	PY38	390	QB136	424	QB254	458	QC12
	357	PY39	391	QB146	425	QB257	459	QC126
	358	PY40	392	QB149	426	QB259	460	QC133
	359	PY46	393	QB152	427	QB26	461	QC146
	360	PY54	394	QB153	428	QB264	462	QC147
25	361	PY7	395	QB164	429	QB271	463	QC152
	362	PY9	396	QB165	430	QB280	464	QC156
	363	PY97	397	QB184	431	QB282	465	QC16
	364	PZ181	398	QB188	432	QB286	466	QC183
	365	PZ243	399	QB196	433	QB287	467	QC190
30	366	PZ300	400	QB199	434	QB289	468	QC199
	367	PZ311	401	QB2	435	QB299	469	QC215
	368	PZ313	402	QB20	436	QB300	470	QC221
	369	PZ331	403	QB200	437	QB301	471	QC226
	370	PZ355	404	QB203	438	QB307	472	QC228

	473	QC229	507	QC49	541	QD201	575	QF114
	474	QC243	508	QC496	542	QD210	576	QF116
	475	QC262	509	QC502	543	QD229	577	QF118
	476	QC265	510	QC506	544	QD242	578	QF121
5	477	QC280	511	QC51	545	QD251	579	QF122
	478	QC284	512	QC525	546	QD253	580	QF132
	479	QC297	513	QC534	547	QD275	581	QF139
	480	QC31	514	QC55	548	QD279	582	QF142
	481	QC333	515	QC556	549	QD285	583	QF147
10	482	QC337	516	QC575	550	QD286	584	QF151
	483	QC339	517	QC578	551	QD302	585	QF153
	484	QC365	518	QC584	552	QD310	586	QF16
	485	QC368	519	QC587	553	QD327	587	QF160
	486	QC380	520	QC59	554	QD328	588	QF161
15	487	QC384	521	QC61	555	QD351	589	QF167
	488	QC386	522	QC611	556	QD388	590	QF17
	489	QC416	523	QC613	557	QD402	591	QF170
	490	QC42	524	QC617	558	QD407	592	QF175
	491	QC432	525	QC63	559	QD421	593	QF199
20	492	QC434	526	QC632	560	QD454	594	QF2
	493	QC436	527	QC638	561	QD465	595	QF220
	494	QC438	528	QC646	562	QD491	596	QF224
	495	QC439	529	QC664	563	QD518	597	QF23
	496	QC443	530	QC668	564	QD89	598	QF233
25	497	QC452	531	QC671	565	QD97	599	QF241
	498	QC458	532	QC687	566	QE193	600	QF248
	499	QC462	533	QC690	567	QE272	601	QF259
	500	QC466	534	QC698	568	QE313	602	QF266
	501	QC467	535	QC708	569	QE357	603	QF276
30	502	QC478	536	QC84	570	QE424	604	QF278
	503	QC483	537	QD103	571	QF101	605	QF282
	504	QC485	538	QD111	572	QF103	606	QF286
	505	QC487	539	QD151	573	QF109	607	QF298
	506	QC488	540	QD159	574	QF110	608	QF303

	609	QF308	643	QF476	677	QF707	711	QG473
	610	QF317	644	QF497	678	QF714	712	QG492
	611	QF319	645	QF507	679	QF75	713	QG531
	612	QF320	646	QF511	680	QF76	714	QG537
5	613	QF327	647	QF513	681	QF93	715	QG542
	614	QF328	648	QF519	682	QF99	716	QG548
	615	QF331	649	QF526	683	QG107	717	QG570
	616	QF338	650	QF53	684	QG127	718	QG571
	617	QF35	651	QF530	685	QG137	719	QG576
10	618	QF359	652	QF539	686	QG170	720	QG577
	619	QF362	653	QF541	687	QG171	721	QG586
	620	QF363	654	QF542	688	QG175	722	QG591
	621	QF366	655	QF556	689	QG185	723	QG593
	622	QF373	656	QF559	690	QG325	724	QG596
15	623	QF375	657	QF56	691	QG342	725	QG619
	624	QF377	658	QF575	692	QG357	726	QG643
	625	QF383	659	QF582	693	QG361	727	QH160
	626	QF385	660	QF6	694	QG373	728	QH184
	627	QF388	661	QF619	695	QG376	729	QH209
20	628	QF393	662	QF620	696	QG378	730	QH211
	629	QF400	663	QF625	697	QG383	731	QH250
	630	QF401	664	QF631	698	QG389	732	QH30
	631	QF404	665	QF636	699	QG398	733	QH324
	632	QF43	666	QF644	700	QG428	734	QH417
25	633	QF442	667	QF65	701	QG433	735	QH48
	634	QF453	668	QF657	702	QG437	736	QH64
	635	QF454	669	QF662	703	QG443	737	QL104
	636	QF455	670	QF663	704	QG449	738	QL109
	637	QF459	671	QF675	705	QG459	739	QL118
30	638	QF46	672	QF679	706	QG465	740	QL125
	639	QF463	673	QF691	707	QG467	741	QL128
	640	QF464	674	QF696	708	QG469	742	QL129
	641	QF467	675	QF703	709	QG470	743	QL130
	642	QF475	676	QF706	710	QG472	744	QL131

	745	QL14	779	QO16	813	QS28	847	QU435
	746	QL16	780	QO164	814	QS39	848	QU449
	747	QL18	781	QO167	815	QS47	849	QU456
	748	QL31	782	QO169	816	QS82	850	QU459
5	749	QL33	783	QO17	817	QS85	851	QU475
	750	QL37	784	QO177	818	QT4	852	QU477
	751	QL4	785	QO203	819	QT6	853	QU483
	752	QL43	786	QO204	820	QU108	854	QU487
	753	QL54	787	QO206	821	QU156	855	QU499
10	754	QL80	788	QO37	822	QU159	856	QU512
	755	QL84	789	QO49	823	QU192	857	QU529
	756	QL98	790	QO75	824	QU210	858	QU532
	757	QM10	791	QO86	825	QU211	859	QU541
	758	QM13	792	QO91	826	QU218	860	QU542
15	759	QM20	793	QR10	827	QU225	861	QU549
	760	QM22	794	QR29	828	QU228	862	QU552
	761	QM23	795	QR40	829	QU234	863	QU567
	762	QM24	796	QR82	830	QU235	864	QU71
	763	QM34	797	QR91	831	QU243	865	QU97
20	764	QM39	798	QS120	832	QU260	866	QU98
	765	QM42	799	QS124	833	QU262	867	QV229
	766	QM54	800	QS13	834	QU298	868	QV235
	767	QM59	801	QS135	835	QU300	869	QV245
	768	QM77	802	QS14	836	QU303	870	QV257
25	769	QM89	803	QS140	837	QU307	871	QV289
	770	QN32	804	QS15	838	QU330	872	QV299
	771	QN7	805	QS153	839	QU332	873	QV306
	772	QO101	806	QS157	840	QU335	874	QV320
	773	QO111	807	QS16	841	QU348	875	QV326
30	774	QO115	808	QS160	842	QU355	876	QV327
	775	QO120	809	QS162	843	QU386	877	QV331
	776	QO140	810	QS164	844	QU398	878	QV349
	777	QO143	811	QS171	845	QU418	879	QV363
	778	QO157	812	QS20	846	QU420	880	QV364

	881	QV378	915	QY1261	949	QY1496	983	QY26
	882	QV391	916	QY1263	950	QY1497	984	QY261
	883	QV521	917	QY1268	951	QY15	985	QY266
	884	QV530	918	QY1271	952	QY1515	986	QY269
5	885	QV531	919	QY1285	953	QY1517	987	QY271
	886	QV538	920	QY1288	954	QY1555	988	QY277
	887	QV549	921	QY129	955	QY1560	989	QY295
	888	QX228	922	QY1299	956	QY1561	990	QY3
	889	QX233	923	QY1306	957	QY1570	991	QY318
10	890	QX264	924	QY1309	958	QY1586	992	QY331
	891	QX312	925	QY132	959	QY1593	993	QY338
	892	QX317	926	QY1327	960	QY1597	994	QY349
	893	QX338	927	QY1339	961	QY1608	995	QY356
	894	QY100	928	QY1342	962	QY1609	996	QY359
15	895	QY1013	929	QY1344	963	QY1642	997	QY361
	896	QY1042	930	QY1345	964	QY1645	998	QY385
	897	QY1065	931	QY1346	965	QY1649	999	QY401
	898	QY1068	932	QY1349	966	QY1660	1000	QY426
	899	QY1073	933	QY1352	967	QY1662	1001	QY441
20	900	QY1075	934	QY1358	968	QY1681	1002	QY442
	901	QY11	935	QY1361	969	QY1720	1003	QY444
	902	QY1102	936	QY1369	970	QY1748	1004	QY448
	903	QY1103	937	QY1376	971	QY1750	1005	QY45
	904	QY1108	938	QY1379	972	QY1753	1006	QY450
25	905	QY1141	939	QY138	973	QY1754	1007	QY458
	906	QY1175	940	QY1383	974	QY1755	1008	QY471
	907	QY1180	941	QY1388	975	QY1756	1009	QY478
	908	QY12	942	QY1394	976	QY1775	1010	QY502
	909	QY1209	943	QY1418	977	QY1781	1011	QY51
30	910	QY1215	944	QY1437	978	QY189	1012	QY536
	911	QY1221	945	QY1445	979	QY214	1013	QY550
	912	QY1224	946	QY1462	980	QY220	1014	QY562
	913	QY1256	947	QY1488	981	QY247	1015	QY566
	914	QY1259	948	QY1495	982	QY257	1016	QY571

	1017	QY593	1051	QZ452	1085	RB448	1119	RB806
	1018	QY623	1052	QZ466	1086	RB485	1120	RB81
	1019	QY644	1053	QZ484	1087	RB497	1121	RB810
	1020	QY704	1054	QZ492	1088	RB513	1122	RB819
5	1021	QY720	1055	QZ498	1089	RB535	1123	RB822
	1022	QY722	1056	RA1018	1090	RB540	1124	RB98
	1023	QY740	1057	RA1121	1091	RB541	1125	RC11
	1024	QY742	1058	RA138	1092	RB544	1126	RC14
	1025	QY746	1059	RA281	1093	RB580	1127	RC21
10	1026	QY757	1060	RA475	1094	RB619	1128	RC29
	1027	QY769	1061	RA562	1095	RB623	1129	RC3
	1028	QY798	1062	RA574	1096	RB627	1130	RC37
	1029	QY801	1063	RA618	1097	RB630	1131	RC57
	1030	QY812	1064	RA726	1098	RB649	1132	RC58
15	1031	QY823	1065	RA885	1099	RB66	1133	RC60
	1032	QY824	1066	RA892	1100	RB666	1134	RC65
	1033	QY833	1067	RA900	1101	RB668	1135	RC7
	1034	QY835	1068	RA905	1102	RB673	1136	RC76
	1035	QY856	1069	RB126	1103	RB674	1137	RD1025
20	1036	QY859	1070	RB160	1104	RB688	1138	RD1027
	1037	QY863	1071	RB164	1105	RB693	1139	RD103
	1038	QY87	1072	RB198	1106	RB714	1140	RD1030
	1039	QY880	1073	RB202	1107	RB727	1141	RD1039
	1040	QY884	1074	RB206	1108	RB738	1142	RD1046
25	1041	QY89	1075	RB218	1109	RB749	1143	RD1049
	1042	QY99	1076	RB231	1110	RB758	1144	RD1054
	1043	QZ118	1077	RB312	1111	RB771	1145	RD1058
	1044	QZ127	1078	RB313	1112	RB773	1146	RD1059
	1045	QZ159	1079	RB342	1113	RB778	1147	RD1068
30	1046	QZ284	1080	RB382	1114	RB788	1148	RD1073
	1047	QZ290	1081	RB40	1115	RB789	1149	RD1094
	1048	QZ311	1082	RB409	1116	RB791	1150	RD1101
	1049	QZ382	1083	RB419	1117	RB792	1151	RD1102
	1050	QZ422	1084	RB422	1118	RB80	1152	RD1109

	1153	RD1111	1187	RD542	1221	RD925	1255	RG184
	1154	RD1124	1188	RD567	1222	RD942	1256	RG199
	1155	RD1131	1189	RD569	1223	RD946	1257	RG200
	1156	RD1141	1190	RD59	1224	RD954	1258	RG211
5	1157	RD1143	1191	RD592	1225	RD959	1259	RG219
	1158	RD1147	1192	RD610	1226	RD960	1260	RG241
	1159	RD1156	1193	RD616	1227	RD962	1261	RG246
	1160	RD1158	1194	RD62	1228	RD966	1262	RG248
	1161	RD1168	1195	RD649	1229	RD969	1263	RG272
10	1162	RD1179	1196	RD652	1230	RD989	1264	RG278
	1163	RD1195	1197	RD67	1231	RD996	1265	RG287
	1164	RD187	1198	RD680	1232	RD997	1266	RG296
	1165	RD194	1199	RD76	1233	RE127	1267	RG299
	1166	RD207	1200	RD775	1234	RE133	1268	RG315
15	1167	RD210	1201	RD778	1235	RE15	1269	RG325
	1168	RD214	1202	RD786	1236	RE219	1270	RG33
	1169	RD229	1203	RD788	1237	RE257	1271	RG333
	1170	RD232	1204	RD792	1238	RE326	1272	RG342
	1171	RD252	1205	RD798	1239	RE345	1273	RG348
20	1172	RD263	1206	RD8	1240	RE365	1274	RG352
	1173	RD309	1207	RD807	1241	RE72	1275	RG353
	1174	RD310	1208	RD810	1242	RF282	1276	RG367
	1175	RD312	1209	RD811	1243	RF439	1277	RG390
	1176	RD392	1210	RD825	1244	RF476	1278	RG407
25	1177	RD432	1211	RD826	1245	RF499	1279	RG409
	1178	RD435	1212	RD852	1246	RF84	1280	RG419
	1179	RD440	1213	RD853	1247	RG105	1281	RG445
	1180	RD456	1214	RD863	1248	RG113	1282	RG447
	1181	RD47	1215	RD870	1249	RG133	1283	RG452
30	1182	RD5	1216	RD876	1250	RG137	1284	RG453
	1183	RD517	1217	RD902	1251	RG145	1285	RG473
	1184	RD52	1218	RD913	1252	RG158	1286	RG48
	1185	RD530	1219	RD917	1253	RG177	1287	RG481
	1186	RD539	1220	RD918	1254	RG178	1288	RG482

	1289	RG494	1323	RI130	1357	RJ497	1391	RJ897
	1290	RG522	1324	RI21	1358	RJ499	1392	RJ898
	1291	RG528	1325	RI231	1359	RJ504	1393	RJ900
	1292	RG531	1326	RI91	1360	RJ507	1394	RJ903
5	1293	RG533	1327	RJ118	1361	RJ520	1395	RJ925
	1294	RG539	1328	RJ137	1362	RJ525	1396	RJ95
	1295	RG555	1329	RJ139	1363	RJ533	1397	RJ952
	1296	RG563	1330	RJ150	1364	RJ545	1398	RJ965
	1297	RG571	1331	RJ170	1365	RJ552	1399	RK100
10	1298	RG575	1332	RJ187	1366	RJ601	1400	RK115
	1299	RG583	1333	RJ214	1367	RJ652	1401	RK137
	1300	RG590	1334	RJ216	1368	RJ653	1402	RK144
	1301	RG593	1335	RJ223	1369	RJ656	1403	RK170
	1302	RG604	1336	RJ224	1370	RJ7	1404	RK211
15	1303	RG615	1337	RJ23	1371	RJ713	1405	RK216
	1304	RG631	1338	RJ243	1372	RJ719	1406	RK23
	1305	RG633	1339	RJ286	1373	RJ724	1407	RK253
	1306	RG636	1340	RJ288	1374	RJ727	1408	RK255
	1307	RG64	1341	RJ338	1375	RJ731	1409	RK260
20	1308	RG652	1342	RJ348	1376	RJ742	1410	RK265
	1309	RG656	1343	RJ353	1377	RJ749	1411	RK28
	1310	RG661	1344	RJ359	1378	RJ777	1412	RK41
	1311	RG663	1345	RJ361	1379	RJ779	1413	RK47
	1312	RG671	1346	RJ384	1380	RJ781	1414	RK59
25	1313	RH14	1347	RJ4	1381	RJ792	1415	RK65
	1314	RH17	1348	RJ402	1382	RJ8	1416	RK80
	1315	RH20	1349	RJ405	1383	RJ813	1417	RL106
	1316	RH22	1350	RJ431	1384	RJ828	1418	RL121
	1317	RH26	1351	RJ455	1385	RJ85	1419	RL122
30	1318	RH31	1352	RJ462	1386	RJ859	1420	RL128
	1319	RH41	1353	RJ465	1387	RJ870	1421	RL146
	1320	RH445	1354	RJ471	1388	RJ874	1422	RL15
	1321	RH510	1355	RJ482	1389	RJ890	1423	RL151
	1322	RI10	1356	RJ493	1390	RJ891	1424	RL169

	1425	RL188	1459	RL862	1493	RT1	1527	RU198
	1426	RL19	1460	RL87	1494	RT104	1528	RU199
	1427	RL245	1461	RL884	1495	RT11	1529	RU204
	1428	RL266	1462	RL885	1496	RT113	1530	RU220
5	1429	RL295	1463	RL886	1497	RT12	1531	RU233
	1430	RL310	1464	RL905	1498	RT120	1532	RU244
	1431	RL334	1465	RL957	1499	RT138	1533	RU255
	1432	RL336	1466	RL967	1500	RT15	1534	RU286
	1433	RL341	1467	RL969	1501	RT16	1535	RU288
10	1434	RL344	1468	RL979	1502	RT28	1536	RU292
	1435	RL356	1469	RM19	1503	RT34	1537	RU294
	1436	RL359	1470	RM26	1504	RT40	1538	RU327
	1437	RL360	1471	RN14	1505	RT42	1539	RU330
	1438	RL379	1472	RN17	1506	RT63	1540	RU333
15	1439	RL397	1473	RN43	1507	RT69	1541	RU355
	1440	RL455	1474	RN46	1508	RT70	1542	RU375
	1441	RL465	1475	RN55	1509	RT85	1543	RU388
	1442	RL487	1476	RN65	1510	RT88	1544	RU391
	1443	RL498	1477	RN75	1511	RT89	1545	RU50
20	1444	RL52	1478	RN81	1512	RT96	1546	RU71
	1445	RL565	1479	RN82	1513	RU11	1547	RU80
	1446	RL579	1480	RN85	1514	RU12	1548	RV106
	1447	RL606	1481	RP123	1515	RU120	1549	RV122
	1448	RL645	1482	RP146	1516	RU13	1550	RV144
25	1449	RL655	1483	RP161	1517	RU135	1551	RV15
	1450	RL693	1484	RP33	1518	RU14	1552	RV175
	1451	RL718	1485	RP34	1519	RU140	1553	RV21
	1452	RL721	1486	RP57	1520	RU146	1554	RV228
	1453	RL743	1487	RP81	1521	RU147	1555	RV239
30	1454	RL749	1488	RP87	1522	RU15	1556	RV247
	1455	RL808	1489	RQ15	1523	RU157	1557	RV252
	1456	RL83	1490	RR19	1524	RU172	1558	RV263
	1457	RL832	1491	RR20	1525	RU179	1559	RV271
	1458	RL840	1492	RS2	1526	RU182	1560	RV296

	1561	RV298	1595	RV805	1629	RX205	1663	RX536
	1562	RV305	1596	RV880	1630	RX209	1664	RX538
	1563	RV310	1597	RV9	1631	RX213	1665	RX554
	1564	RV319	1598	RW109	1632	RX22	1666	RX66
5	1565	RV422	1599	RW123	1633	RX245	1667	RX90
	1566	RV465	1600	RW193	1634	RX249	1668	RY140
	1567	RV476	1601	RW197	1635	RX252	1669	RY152
	1568	RV48	1602	RW253	1636	RX255	1670	RY193
	1569	RV49	1603	RW257	1637	RX263	1671	RY24
10	1570	RV490	1604	RW278	1638	RX282	1672	RY25
	1571	RV498	1605	RW290	1639	RX294	1673	RY295
	1572	RV504	1606	RW302	1640	RX314	1674	RY297
	1573	RV524	1607	RW344	1641	RX322	1675	RY307
	1574	RV555	1608	RW38	1642	RX326	1676	RY328
15	1575	RV576	1609	RW382	1643	RX332	1677	RY35
	1576	RV579	1610	RW440	1644	RX363	1678	RY385
	1577	RV598	1611	RW447	1645	RX373	1679	RY394
	1578	RV612	1612	RW456	1646	RX375	1680	RY418
	1579	RV627	1613	RW464	1647	RX392	1681	RY429
20	1580	RV634	1614	RW480	1648	RX40	1682	RY438
	1581	RV635	1615	RW488	1649	RX417	1683	RY450
	1582	RV637	1616	RW51	1650	RX419	1684	RY465
	1583	RV643	1617	RW513	1651	RX431	1685	RY47
	1584	RV656	1618	RW520	1652	RX443	1686	RY471
25	1585	RV681	1619	RW58	1653	RX466	1687	RY496
	1586	RV705	1620	RW661	1654	RX478	1688	RY535
	1587	RV707	1621	RW693	1655	RX479	1689	RY551
	1588	RV72	1622	RW84	1656	RX487	1690	RY580
	1589	RV724	1623	RX127	1657	RX491	1691	RY674
30	1590	RV759	1624	RX166	1658	RX499	1692	RY675
	1591	RV778	1625	RX176	1659	RX510	1693	RY681
	1592	RV796	1626	RX18	1660	RX527	1694	RY80
	1593	RV801	1627	RX185	1661	RX528	1695	RY81
	1594	RV803	1628	RX192	1662	RX534	1696	RZ126

	1697	RZ129	1731	SA139	1765	SB15	1799	SC265
	1698	RZ142	1732	SA140	1766	SB171	1800	SC271
	1699	RZ16	1733	SA323	1767	SB172	1801	SC273
	1700	RZ221	1734	SA33	1768	SB20	1802	SC294
5	1701	RZ224	1735	SA331	1769	SB228	1803	SC296
	1702	RZ226	1736	SA34	1770	SB230	1804	SC298
	1703	RZ262	1737	SA361	1771	SB236	1805	SC318
	1704	RZ304	1738	SA404	1772	SB250	1806	SC341
	1705	RZ323	1739	SA481	1773	SB256	1807	SC359
10	1706	RZ361	1740	SA488	1774	SB276	1808	SC370
	1707	RZ405	1741	SA493	1775	SB280	1809	SC382
	1708	RZ409	1742	SA508	1776	SB342	1810	SC394
	1709	RZ411	1743	SA537	1777	SB36	1811	SC40
	1710	RZ425	1744	SA539	1778	SB39	1812	SC401
15	1711	RZ435	1745	SA543	1779	SB44	1813	SC404
	1712	RZ44	1746	SA569	1780	SB49	1814	SC46
	1713	RZ454	1747	SA570	1781	SB66	1815	SC58
	1714	RZ514	1748	SA576	1782	SB86	1816	SC59
	1715	RZ527	1749	SA601	1783	SC115	1817	SC88
20	1716	RZ553	1750	SA624	1784	SC117	1818	SC89
	1717	RZ568	1751	SA627	1785	SC136	1819	SD55
	1718	RZ599	1752	SA629	1786	SC144	1820	SE42
	1719	RZ610	1753	SA638	1787	SC145	1821	SE71
	1720	RZ627	1754	SA643	1788	SC163	1822	SF120
25	1721	RZ664	1755	SA649	1789	SC164	1823	SF124
	1722	RZ670	1756	SA664	1790	SC17	1824	SF125
	1723	RZ692	1757	SA679	1791	SC173	1825	SF138
	1724	RZ698	1758	SA74	1792	SC176	1826	SF146
	1725	RZ730	1759	SA79	1793	SC193	1827	SF156
30	1726	S1	1760	SB12	1794	SC199	1828	SF172
	1727	S199	1761	SB123	1795	SC209	1829	SF173
	1728	SA120	1762	SB147	1796	SC226	1830	SF180
	1729	SA122	1763	SB148	1797	SC244	1831	SF184
	1730	SA124	1764	SB149	1798	SC245	1832	SF206

	1833	SF222	1867	SF59	1901	SG352	1935	WG63
	1834	SF226	1868	SF592	1902	SG77	1936	WG67
	1835	SF240	1869	SF601	1903	T85	1937	WG75
	1836	SF245	1870	SF608	1904	V207	1938	WG76
5	1837	SF249	1871	SF624	1905	V222	1939	WG77
	1838	SF265	1872	SF626	1906	WA109	1940	WG9
	1839	SF275	1873	SF637	1907	WA118	1941	WG90
	1840	SF286	1874	SF67	1908	WA129	1942	WG93
	1841	SF292	1875	SF69	1909	WA135	1943	WG94
10	1842	SF302	1876	SF78	1910	WA15	1944	WH101
	1843	SF303	1877	SF98	1911	WA153	1945	WH110
	1844	SF307	1878	SG1	1912	WA154	1946	WH113
	1845	SF309	1879	SG122	1913	WA545	1947	WH114
	1846	SF315	1880	SG124	1914	WC73	1948	WH117
15	1847	SF339	1881	SG126	1915	WC74	1949	WH119
	1848	SF34	1882	SG127	1916	WC88	1950	WH120
	1849	SF340	1883	SG148	1917	WF2	1951	WH128
	1850	SF348	1884	SG15	1918	WF3	1952	WH129
	1851	SF371	1885	SG169	1919	WF4	1953	WH13
20	1852	SF379	1886	SG213	1920	WG14	1954	WH130
	1853	SF401	1887	SG243	1921	WG21	1955	WH133
	1854	SF429	1888	SG261	1922	WG24	1956	WH135
	1855	SF442	1889	SG262	1923	WG26	1957	WH140
	1856	SF444	1890	SG272	1924	WG30	1958	WH142
25	1857	SF445	1891	SG275	1925	WG31	1959	WH146
	1858	SF465	1892	SG281	1926	WG32	1960	WH150
	1859	SF472	1893	SG293	1927	WG34	1961	WH155
	1860	SF497	1894	SG295	1928	WG39	1962	WH16
	1861	SF499	1895	SG312	1929	WG41	1963	WH169
30	1862	SF50	1896	SG334	1930	WG44	1964	WH17
	1863	SF517	1897	SG335	1931	WG53	1965	WH170
	1864	SF553	1898	SG345	1932	WG55	1966	WH175
	1865	SF577	1899	SG347	1933	WG59	1967	WH178
	1866	SF582	1900	SG35	1934	WG62	1968	WH179

	1969	WH180	2003	WI143	2037	WJ200	2071	WL554
	1970	WH181	2004	WI144	2038	WJ202	2072	WL556
	1971	WH185	2005	WI145	2039	WJ231	2073	WL560
	1972	WH200	2006	WI150	2040	WJ233	2074	WL561
5	1973	WH204	2007	WI152	2041	WJ236	2075	WL566
	1974	WH209	2008	WI156	2042	WJ238	2076	WL567
	1975	WH211	2009	WI168	2043	WJ243	2077	WL570
	1976	WH214	2010	WI173	2044	WJ245	2078	WL580
	1977	WH216	2011	WI175	2045	WJ248	2079	WL582
10	1978	WH219	2012	WI178	2046	WJ275	2080	WL637
	1979	WH22	2013	WI18	2047	WJ289	2081	WL644
	1980	WH224	2014	WI181	2048	WJ291	2082	WL647
	1981	WH230	2015	WI232	2049	WJ295	2083	WL657
	1982	WH26	2016	WI233	2050	WJ296	2084	WL663
15	1983	WH27	2017	WI234	2051	WJ301	2085	WL664
	1984	WH3	2018	WI239	2052	WK159	2086	WL666
	1985	WH30	2019	WI243	2053	WK168	2087	Z107
	1986	WH39	2020	WI244	2054	WK172	2088	Z123
	1987	WH40	2021	WI246	2055	WK174	2089	Z132
20	1988	WH43	2022	WI248	2056	WK177	2090	Z134
	1989	WH44	2023	WI251	2057	WK178	2091	Z135
	1990	WH47	2024	WI257	2058	WK185	2092	Z139
	1991	WI1	2025	WI265	2059	WK199	2093	Z145
	1992	WI108	2026	WI266	2060	WK200	2094	Z217
25	1993	WI109	2027	WI267	2061	WK215	2095	Z218
	1994	WI114	2028	WI268	2062	WK220	2096	Z243
	1995	WI116	2029	WI270	2063	WK225	2097	Z250
	1996	WI119	2030	WI44	2064	WK228	2098	Z253
	1997	WI12	2031	WI9	2065	WK234	2099	Z254
30	1998	WI125	2032	WI96	2066	WK247	2100	Z256
	1999	WI13	2033	WJ168	2067	WL503	2101	Z260
	2000	WI131	2034	WJ176	2068	WL508	2102	Z286
	2001	WI139	2035	WJ192	2069	WL519	2103	Z287
	2002	WI142	2036	WJ193	2070	WL546	2104	Z288

	2105	Z294	2139	Z729
	2106	Z320	2140	Z738
	2107	Z327	2141	Z743
	2108	Z328	2142	Z747
5	2109	Z338	2143	Z748
	2110	Z343	2144	Z749
	2111	Z372	2145	Z750
	2112	Z391	2146	Z756
	2113	Z415	2147	Z768
10	2114	Z450	2148	Z769
	2115	Z459	2149	Z792
	2116	Z469	2150	Z805
	2117	Z480	2151	Z806
	2118	Z497	2152	Z837
15	2119	Z504	2153	Z843
	2120	Z577	2154	Z847
	2121	Z584	2155	Z852
	2122	Z590	2156	Z856
	2123	Z594	2157	Z864
20	2124	Z599	2158	Z865
	2125	Z603	2159	Z871
	2126	Z607		
	2127	Z610		
	2128	Z617		
25	2129	Z624		
	2130	Z631		
	2131	Z633		
	2132	Z654		
	2133	Z656		
30	2134	Z660		
	2135	Z666		
	2136	Z674		
	2137	Z677		
	2138	Z719		

The "Clone ID No." for a particular clone consists of one or two letters followed by a number. The letters designate the tissue source from which the sEST was isolated. Table 3 below lists the various sources which were run through applicants' signal sequence trap. Thus, the tissue source for a particular sEST sequence can be identified in Table 3 by the one and two letter designations used in the relevant "Clone ID No." in Table 2. For example, a clone designated as "PP85" would have been isolated from a human adult blood (lymphoblastic leukemia MOLT-4) library (i.e., selection "PP") as indicated in Table 3.

As used herein, "polynucleotide" includes single- and double-stranded RNAs, DNAs and RNA:DNA hybrids.

As used herein a "secreted" protein is one which, when expressed in a suitable host cell, is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence. "Secreted" proteins include without limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g., receptors) from the cell in which they are expressed. "Secreted" proteins also include without limitation proteins which are transported across the membrane of the endoplasmic reticulum.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention. Fragments of the protein may be in linear form or they may be cyclized using known methods, for example, as described in H.U. Saragovi, *et al.*, *Bio/Technology* 10, 773-778 (1992) and in R.S. McDowell, *et al.*, *J. Amer. Chem. Soc.* 114, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing the valency of protein binding sites. For example, fragments of the protein may be fused through "linker" sequences to the Fc portion of an immunoglobulin. For a bivalent form of the protein, such a fusion could be to the Fc portion of an IgG molecule. Other immunoglobulin isotypes may also be used to generate such fusions. For example, a protein - IgM fusion would generate a decavalent form of the protein of the invention.

The present invention also provides both full-length and mature forms of the disclosed proteins. The full-length form of the such proteins is identified in the sequence listing by translation of the nucleotide sequence of each disclosed clone. The mature form(s) of such protein may be obtained by expression of the disclosed

full-length polynucleotide (preferably those deposited with ATCC) in a suitable mammalian cell or other host cell. The sequence(s) of the mature form(s) of the protein may also be determinable from the amino acid sequence of the full-length form.

5 The present invention also provides genes corresponding to the polynucleotide sequences disclosed herein. "Corresponding genes" are the regions of the genome that are transcribed to produce the mRNAs from which cDNA polynucleotide sequences are derived and may include contiguous regions of the genome necessary for the regulated expression of such genes. Corresponding genes
10 may therefore include but are not limited to coding sequences, 5' and 3' untranslated regions, alternatively spliced exons, introns, promoters, enhancers, and silencer or suppressor elements. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information
15 for identification and/or amplification of genes in appropriate genomic libraries or other sources of genomic materials. An "isolated gene" is a gene that has been separated from the adjacent coding sequences, if any, present in the genome of the organism from which the gene was isolated.

 The chromosomal location corresponding to the polynucleotide sequences
20 disclosed herein may also be determined, for example by hybridizing appropriately labeled polynucleotides of the present invention to chromosomes *in situ*. It may also be possible to determine the corresponding chromosomal location for a disclosed polynucleotide by identifying significantly similar nucleotide sequences in public databases, such as expressed sequence tags (ESTs), that have already been mapped
25 to particular chromosomal locations. For at least some of the polynucleotide sequences disclosed herein, public database sequences having at least some similarity to the polynucleotide of the present invention have been listed by database accession number. Searches using the GenBank accession numbers of these public database sequences can then be performed at an Internet site provided by the National Center
30 for Biotechnology Information having the address www.ncbi.nlm.nih.gov/UniGene, in order to identify "UniGene clusters" of overlapping sequences. Many of the "UniGene clusters" so identified will already have been mapped to particular chromosomal sites.

Organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein are provided. The desired change in gene expression can be achieved through the use of antisense polynucleotides or ribozymes that bind and/or cleave the mRNA transcribed from the gene (Albert and Morris, 1994, *Trends Pharmacol. Sci.* 15(7): 250-254; Lavarosky et al., 1997, *Biochem. Mol. Med.* 62(1): 11-22; and Hampel, 1998, *Prog. Nucleic Acid Res. Mol. Biol.* 58: 1-39; all of which are incorporated by reference herein). Transgenic animals that have multiple copies of the gene(s) corresponding to the polynucleotide sequences disclosed herein, preferably produced by transformation of cells with genetic constructs that are stably maintained within the transformed cells and their progeny, are provided. Transgenic animals that have modified genetic control regions that increase or reduce gene expression levels, or that change temporal or spatial patterns of gene expression, are also provided (see European Patent No. 0 649 464 B1, incorporated by reference herein). In addition, organisms are provided in which the gene(s) corresponding to the polynucleotide sequences disclosed herein have been partially or completely inactivated, through insertion of extraneous sequences into the corresponding gene(s) or through deletion of all or part of the corresponding gene(s). Partial or complete gene inactivation can be accomplished through insertion, preferably followed by imprecise excision, of transposable elements (Plasterk, 1992, *Bioessays* 14(9): 629-633; Zwaal et al., 1993, *Proc. Natl. Acad. Sci. USA* 90(16): 7431-7435; Clark et al., 1994, *Proc. Natl. Acad. Sci. USA* 91(2): 719-722; all of which are incorporated by reference herein), or through homologous recombination, preferably detected by positive/negative genetic selection strategies (Mansour et al., 1988, *Nature* 336: 348-352; U.S. Patent Nos. 5,464,764; 5,487,992; 5,627,059; 5,631,153; 5,614,396; 5,616,491; and 5,679,523; all of which are incorporated by reference herein). These organisms with altered gene expression are preferably eukaryotes and more preferably are mammals. Such organisms are useful for the development of non-human models for the study of disorders involving the corresponding gene(s), and for the development of assay systems for the identification of molecules that interact with the protein product(s) of the corresponding gene(s).

Where the protein of the present invention is membrane-bound (e.g., is a receptor), the present invention also provides for soluble forms of such protein. In such forms part or all of the intracellular and transmembrane domains of the protein

are deleted such that the protein is fully secreted from the cell in which it is expressed. The intracellular and transmembrane domains of proteins of the invention can be identified in accordance with known techniques for determination of such domains from sequence information.

5 Proteins and protein fragments of the present invention include proteins with amino acid sequence lengths that are at least 25% (more preferably at least 50%, and most preferably at least 75%) of the length of a disclosed protein and have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with that disclosed protein, where sequence identity is
10 determined by comparing the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Also included in the present invention are proteins and protein fragments that contain a segment preferably comprising 8 or more (more preferably 20 or more, most preferably 30 or more) contiguous amino acids that shares at least 75% sequence identity (more
15 preferably, at least 85% identity; most preferably at least 95% identity) with any such segment of any of the disclosed proteins.

In particular, sequence identity may be determined using WU-BLAST (Washington University BLAST) version 2.0 software, which builds upon WU-BLAST version 1.4, which in turn is based on the public domain NCBI-BLAST
20 version 1.4 (Altschul and Gish, 1996, Local alignment statistics, Doolittle *ed.*, *Methods in Enzymology* 266: 460-480; Altschul *et al.*, 1990, Basic local alignment search tool, *Journal of Molecular Biology* 215: 403-410; Gish and States, 1993, Identification of protein coding regions by database similarity search, *Nature Genetics* 3: 266-272; Karlin and Altschul, 1993, Applications and statistics for multiple
25 high-scoring segments in molecular sequences, *Proc. Natl. Acad. Sci. USA* 90: 5873-5877; all of which are incorporated by reference herein). WU-BLAST version 2.0 executable programs for several UNIX platforms can be downloaded from the Internet file-transfer protocol (FTP) site <ftp://blast.wustl.edu/blast/executables>. The complete suite of search programs (BLASTP, BLASTN, BLASTX, TBLASTN, and
30 TBLASTX) is provided at that site, in addition to several support programs. WU-BLAST 2.0 is copyrighted and may not be sold or redistributed in any form or manner without the express written consent of the author; but the posted executables

may otherwise be freely used for commercial, nonprofit, or academic purposes. In all search programs in the suite -- BLASTP, BLASTN, BLASTX, TBLASTN and TBLASTX -- the gapped alignment routines are integral to the database search itself, and thus yield much better sensitivity and selectivity while producing the more easily interpreted output. Gapping can optionally be turned off in all of these programs, if desired. The default penalty (Q) for a gap of length one is Q=9 for proteins and BLASTP, and Q=10 for BLASTN, but may be changed to any integer value including zero, one through eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. The default per-residue penalty for extending a gap (R) is R=2 for proteins and BLASTP, and R=10 for BLASTN, but may be changed to any integer value including zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. Any combination of values for Q and R can be used in order to align sequences so as to maximize overlap and identity while minimizing sequence gaps. The default amino acid comparison matrix is BLOSUM62, but other amino acid comparison matrices such as PAM can be utilized.

Species homologues of the disclosed polynucleotides and proteins are also provided by the present invention. As used herein, a "species homologue" is a protein or polynucleotide with a different species of origin from that of a given protein or polynucleotide, but with significant sequence similarity to the given protein or polynucleotide. Preferably, polynucleotide species homologues have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, and protein species homologues have at least 30% sequence identity (more preferably, at least 45% identity; most preferably at least 60% identity) with the given protein, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides or the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Species homologues may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from the desired species. Preferably, species homologues are those isolated from mammalian species. Most preferably, species homologues are those isolated from certain mammalian species such as, for example,

Pan troglodytes, *Corilla gorilla*, *Pongo pygmaeus*, *Hylobates concolor*, *Macaca mulatta*, *Papio papio*, *Papio hamadryas*, *Cercopithecus aethiops*, *Cebus capucinus*, *Aotus trivirgatus*, *Sanguinus oedipus*, *Microcebus murinus*, *Mus musculus*, *Rattus norvegicus*, *Cricetulus griseus*, *Felis catus*, *Mustela vison*, *Canis familiaris*, *Oryctolagus cuniculus*, *Bos taurus*, *Ovis aries*, *Sus scrofa*, and *Equus caballus*, for which genetic maps have been created allowing the identification of syntenic relationships between the genomic organization of genes in one species and the genomic organization of the related genes in another species (O'Brien and Seuánez, 1988, *Ann. Rev. Genet.* 22: 323-351; O'Brien *et al.*, 1993, *Nature Genetics* 3:103-112; Johansson *et al.*, 1995, *Genomics* 25: 682-690; Lyons *et al.*, 1997, *Nature Genetics* 15: 47-56; O'Brien *et al.*, 1997, *Trends in Genetics* 13(10): 393-399; Carver and Stubbs, 1997, *Genome Research* 7:1123-1137; all of which are incorporated by reference herein).

The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotides which also encode proteins which are identical or have significantly similar sequences to those encoded by the disclosed polynucleotides. Preferably, allelic variants have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps. Allelic variants may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from individuals of the appropriate species.

The invention also includes polynucleotides with sequences complementary to those of the polynucleotides disclosed herein.

The present invention also includes polynucleotides that hybridize under reduced stringency conditions, more preferably stringent conditions, and most preferably highly stringent conditions, to polynucleotides described herein. Examples of stringency conditions are shown in the table below: highly stringent conditions are those that are at least as stringent as, for example, conditions A-F; stringent conditions are at least as stringent as, for example, conditions G-L; and reduced stringency conditions are at least as stringent as, for example, conditions M-R.

Stringency Condition	Polynucleotide Hybrid	Hybrid Length (bp) [‡]	Hybridization Temperature and Buffer [†]	Wash Temperature and Buffer [†]
A	DNA:DNA	≥ 50	65°C; 1xSSC -or- 42°C; 1xSSC, 50% formamide	65°C; 0.3xSSC
B	DNA:DNA	<50	T _B [*] ; 1xSSC	T _B [*] ; 1xSSC
C	DNA:RNA	≥ 50	67°C; 1xSSC -or- 45°C; 1xSSC, 50% formamide	67°C; 0.3xSSC
D	DNA:RNA	<50	T _D [*] ; 1xSSC	T _D [*] ; 1xSSC
E	RNA:RNA	≥ 50	70°C; 1xSSC -or- 50°C; 1xSSC, 50% formamide	70°C; 0.3xSSC
F	RNA:RNA	<50	T _F [*] ; 1xSSC	T _F [*] ; 1xSSC
G	DNA:DNA	≥ 50	65°C; 4xSSC -or- 42°C; 4xSSC, 50% formamide	65°C; 1xSSC
H	DNA:DNA	<50	T _H [*] ; 4xSSC	T _H [*] ; 4xSSC
I	DNA:RNA	≥ 50	67°C; 4xSSC -or- 45°C; 4xSSC, 50% formamide	67°C; 1xSSC
J	DNA:RNA	<50	T _J [*] ; 4xSSC	T _J [*] ; 4xSSC
K	RNA:RNA	≥ 50	70°C; 4xSSC -or- 50°C; 4xSSC, 50% formamide	67°C; 1xSSC
L	RNA:RNA	<50	T _L [*] ; 2xSSC	T _L [*] ; 2xSSC
M	DNA:DNA	≥ 50	50°C; 4xSSC -or- 40°C; 6xSSC, 50% formamide	50°C; 2xSSC
N	DNA:DNA	<50	T _N [*] ; 6xSSC	T _N [*] ; 6xSSC
O	DNA:RNA	≥ 50	55°C; 4xSSC -or- 42°C; 6xSSC, 50% formamide	55°C; 2xSSC
P	DNA:RNA	<50	T _P [*] ; 6xSSC	T _P [*] ; 6xSSC
Q	RNA:RNA	≥ 50	60°C; 4xSSC -or- 45°C; 6xSSC, 50% formamide	60°C; 2xSSC
R	RNA:RNA	<50	T _R [*] ; 4xSSC	T _R [*] ; 4xSSC

[‡]: The hybrid length is that anticipated for the hybridized region(s) of the hybridizing polynucleotides. When hybridizing a polynucleotide to a target polynucleotide of unknown sequence, the hybrid length is assumed to be that of the hybridizing polynucleotide. When polynucleotides of known sequence are hybridized, the hybrid length can be determined by aligning the sequences of the polynucleotides and identifying the region or regions of optimal sequence complementarity.

[†]: SSPE (1xSSPE is 0.15M NaCl, 10mM NaH₂PO₄, and 1.25mM EDTA, pH 7.4) can be substituted for SSC (1xSSC is 0.15M NaCl and 15mM sodium citrate) in the hybridization and wash buffers; washes are performed for 15 minutes after hybridization is complete.

^{*}T_B - T_R: The hybridization temperature for hybrids anticipated to be less than 50 base pairs in length should be 5-10°C less than the melting temperature (T_m) of the hybrid, where T_m is determined according to the following equations. For hybrids less than 18 base pairs in length, T_m(°C) = 2(# of A + T bases) + 4(# of G + C bases). For hybrids between 18 and 49 base

pairs in length, $T_m(^{\circ}\text{C}) = 81.5 + 16.6(\log_{10}[\text{Na}^+]) + 0.41(\%G+C) - (600/N)$, where N is the number of bases in the hybrid, and $[\text{Na}^+]$ is the concentration of sodium ions in the hybridization buffer ($[\text{Na}^+]$ for 1xSSC = 0.165 M).

5 Additional examples of stringency conditions for polynucleotide hybridization are provided in Sambrook, J., E.F. Fritsch, and T. Maniatis, 1989, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, chapters 9 and 11, and *Current Protocols in Molecular Biology*, 1995, F.M. Ausubel et al., eds., John Wiley & Sons, Inc., sections 2.10 and 6.3-6.4,
10 incorporated herein by reference.

Preferably, each such hybridizing polynucleotide has a length that is at least 25% (more preferably at least 50%, and most preferably at least 75%) of the length of the polynucleotide of the present invention to which it hybridizes, and has at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least
15 90% or 95% identity) with the polynucleotide of the present invention to which it hybridizes, where sequence identity is determined by comparing the sequences of the hybridizing polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps.

The isolated polynucleotide of the invention may contain sequences at its 5' and/or 3' end that are derived from linker, polylinker, or multiple cloning site sequences commonly found in vectors such as the pMT2 or pED expression vectors (see below). For example, sequences such as SEQ ID NO:2160, SEQ ID NO:2161, or SEQ ID NO:2162 may be found at the 5' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 3' end.
20 Similarly, sequences such as SEQ ID NO:2163, SEQ ID NO:2164, or SEQ ID NO:2165 may be found at the 3' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 5' end. In addition, variants of these linker sequences may be present in isolated polynucleotides of the invention, which linker variants vary from SEQ ID NO:2160 through SEQ ID NO:2165
25 by the alteration, insertion, or deletion of one or more nucleotides. Therefore, a preferred embodiment of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 25 and ending at nucleotide (N-25) of the SEQ ID NO for that polynucleotide, where N represents the total number of nucleotides in the sequence. As a specific example, a preferred
30 embodiment of the invention comprises the nucleotide sequence of SEQ ID NO:1
35

from nucleotide 25 to nucleotide 180, where the total number of nucleotides (N) in SEQ ID NO:1 is 205, and N-25 equals 180. More preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 30 and ending at nucleotide (N-30) of the
5 SEQ ID NO for that polynucleotide. Most preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 35 and ending at nucleotide (N-35) of the SEQ ID NO for that polynucleotide.

The isolated polynucleotide of the invention may be operably linked to an
10 expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman *et al.*, Nucleic Acids Res. 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, Methods in Enzymology 185, 537-566 (1990). As defined
15 herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

A number of types of cells may act as suitable host cells for expression of the
20 protein. Mammalian host cells include, for example, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from *in vitro* culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells.
25 Alternatively, it may be possible to produce the protein in lower eukaryotes such as yeast or in prokaryotes such as bacteria. Potentially suitable yeast strains include *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, *Kluyveromyces* strains, *Candida*, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include *Escherichia coli*, *Bacillus subtilis*, *Salmonella typhimurium*, or any bacterial strain capable of expressing heterologous proteins. If
30 the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available
5 in kit form from, *e.g.*, Invitrogen, San Diego, California, U.S.A. (the MaxBac® kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

10 The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (*i.e.*, from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an
15 affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin-toyopearl® or Cibacrom blue 3GA Sepharose®; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

20 Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX). Kits for expression and purification of such fusion proteins are commercially available from New England BioLabs (Beverly, MA),
25 Pharmacia (Piscataway, NJ) and Invitrogen Corporation (Carlsbad, CA), respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("Flag") is commercially available from the Eastman Kodak Company (New Haven, CT).

Finally, one or more reverse-phase high performance liquid chromatography
30 (RP-HPLC) steps employing hydrophobic RP-HPLC media, *e.g.*, silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant

protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

The protein may also be produced by known conventional chemical synthesis. Methods for constructing the proteins of the present invention by synthetic means are known to those skilled in the art. The synthetically-constructed protein sequences, by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications in the peptide or DNA sequences can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or deletion are well known to those skilled in the art (see, e.g., U.S. Patent No. 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein.

Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and may thus be useful for screening or other immunological methodologies may also be easily made by those skilled in the art given the disclosures herein. Such modifications are believed to be encompassed by the present invention.

USES AND BIOLOGICAL ACTIVITY

The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified below. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or by administration or use of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA).

Research Uses and Utilities

The polynucleotides provided by the present invention can be used by the research community for various purposes. The primary use of polynucleotides of the invention which are sESTs is as probes for the identification and isolation of full-length cDNAs and genomic DNA molecules which correspond (i.e., is a longer polynucleotide sequence of which substantially the entire sEST is a fragment in the case of a full-length cDNA, or which encodes the sEST in the case of a genomic DNA molecule) to such sESTs. Techniques for use of such sequences as probes for larger cDNAs or genomic molecules are well known in the art.

The polynucleotides can also be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on Southern gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtract-out" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to

identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The proteins provided by the present invention can similarly be used in assay to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Where the protein binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the protein can be used to identify the other protein with which binding occurs or to identify inhibitors of the binding interaction. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit-format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E.F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S.L. and A.R. Kimmel eds., 1987.

Nutritional Uses

Polynucleotides and proteins of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the protein or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions, suspensions or capsules. In the case of microorganisms, the protein or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

Cytokine and Cell Proliferation/Differentiation Activity

A protein of the present invention may exhibit cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations.

- 5 Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of a protein of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D,
 10 DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+ (preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e and CMK.

The activity of a protein of the invention may, among other means, be measured by the following methods:

- Assays for T-cell or thymocyte proliferation include without limitation those
 15 described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., *J. Immunol.* 137:3494-3500, 1986; Bertagnolli et al., *J. Immunol.* 145:1706-1712, 1990; Bertagnolli
 20 et al., *Cellular Immunology* 133:327-341, 1991; Bertagnolli, et al., *J. Immunol.* 149:3778-3783, 1992; Bowman et al., *J. Immunol.* 152: 1756-1761, 1994.

- Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: Polyclonal T cell stimulation, Kruisbeek, A.M. and Shevach, E.M. In *Current Protocols in*
 25 *Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons, Toronto. 1994; and Measurement of mouse and human Interferon γ , Schreiber, R.D. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

- Assays for proliferation and differentiation of hematopoietic and
 30 lymphopoietic cells include, without limitation, those described in: Measurement of Human and Murine Interleukin 2 and Interleukin 4, Bottomly, K., Davis, L.S. and Lipsky, P.E. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., *J. Exp. Med.* 173:1205-1211, 1991; Moreau et al., *Nature* 336:690-692, 1988; Greenberger et al., *Proc.*

Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6 - Nordan, R. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Acad. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11 - Bennett, F., Giannotti, J., Clark, S.C. and Turner, K. J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9 - Ciarletta, A., Giannotti, J., Clark, S.C. and Turner, K.J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.

10 Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and
15 Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immun. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

20 Immune Stimulating or Suppressing Activity

A protein of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A protein may be useful in the treatment of various
25 immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune
30 disorders. More specifically, infectious diseases caused by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpesviruses, mycobacteria, Leishmania spp., malaria spp. and various fungal infections such as candidiasis. Of course, in this

regard, a protein of the present invention may also be useful where a boost to the immune system generally may be desirable, *i.e.*, in the treatment of cancer.

Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitus, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein of the present invention may also to be useful in the treatment of allergic reactions and conditions, such as asthma (particularly allergic asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein of the present invention.

Using the proteins of the invention it may also be possible to immune responses, in a number of ways. Down regulation may be in the form of inhibiting or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent. Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as , for example, B7)), *e.g.*, preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a molecule which inhibits or blocks interaction of a B7 lymphocyte antigen with its natural ligand(s) on immune cells (such as a soluble, monomeric form of a peptide having

B7-2 activity alone or in conjunction with a monomeric form of a peptide having an activity of another B lymphocyte antigen (e.g., B7-1, B7-3) or blocking antibody), prior to transplantation can lead to the binding of the molecule to the natural ligand(s) on the immune cells without transmitting the corresponding costimulatory signal.

5 Blocking B lymphocyte antigen function in this matter prevents cytokine synthesis by immune cells, such as T cells, and thus acts as an immunosuppressant. Moreover, the lack of costimulation may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of

10 these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

The efficacy of particular blocking reagents in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy

15 in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins *in vivo* as described in Lenschow *et al.*, *Science* 257:789-792 (1992) and Turka *et al.*, *Proc. Natl. Acad. Sci. USA*, 89:11102-11105 (1992). In addition, murine models

20 of GVHD (see Paul *ed.*, *Fundamental Immunology*, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of blocking B lymphocyte antigen function *in vivo* on the development of that disease.

Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate

25 activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block costimulation of T cells by disrupting receptor:ligand interactions of B lymphocyte antigens can be used to

30 inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number

of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythematosus in MRL/*lpr/lpr* mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia
5 gravis (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 840-856).

Upregulation of an antigen function (preferably a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an
10 existing immune response or eliciting an initial immune response. For example, enhancing an immune response through stimulating B lymphocyte antigen function may be useful in cases of viral infection. In addition, systemic viral diseases such as influenza, the common cold, and encephalitis might be alleviated by the administration of stimulatory forms of B lymphocyte antigens systemically.

15 Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells *in vitro* with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the *in vitro* activated T cells into the patient. Another method of
20 enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate,
25 T cells *in vivo*.

In another application, up regulation or enhancement of antigen function (preferably B lymphocyte antigen function) may be useful in the induction of tumor immunity. Tumor cells (e.g., sarcoma, melanoma, lymphoma, leukemia, neuroblastoma, carcinoma) transfected with a nucleic acid encoding at least one
30 peptide of the present invention can be administered to a subject to overcome tumor-specific tolerance in the subject. If desired, the tumor cell can be transfected to express a combination of peptides. For example, tumor cells obtained from a patient can be transfected *ex vivo* with an expression vector directing the expression of a peptide having B7-2-like activity alone, or in conjunction with a peptide having B7-1-

like activity and/or B7-3-like activity. The transfected tumor cells are returned to the patient to result in expression of the peptides on the surface of the transfected cell.

Alternatively, gene therapy techniques can be used to target a tumor cell for transfection *in vivo*.

- 5 The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient amounts of MHC class I or
- 10 MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (*e.g.*, a cytoplasmic-domain truncated portion) of an MHC class I α chain protein and β_2 microglobulin protein or an MHC class II α chain protein and an MHC class II β chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a
- 15 peptide having the activity of a B lymphocyte antigen (*e.g.*, B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote
- 20 presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

- 25 Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc.
- 30 Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J.

Immunol. 137:3494-3500, 1986; Bowman et al., J. Virology 61:1992-1998; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

Assays for T-cell-dependent immunoglobulin responses and isotype
5 switching (which will identify, among others, proteins that modulate T-cell
dependent antibody responses and that affect Th1/Th2 profiles) include, without
limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and
Assays for B cell function: *In vitro* antibody production, Mond, J.J. and Brunswick,
M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John
10 Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others,
proteins that generate predominantly Th1 and CTL responses) include, without
limitation, those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan,
A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing
15 Associates and Wiley-Interscience (Chapter 3, *In Vitro* assays for Mouse Lymphocyte
Function 3.1-3.19; Chapter 7, *Immunologic studies in Humans*); Takai et al., J.
Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli
et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins
20 expressed by dendritic cells that activate naive T-cells) include, without limitation,
those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., *Journal of
Experimental Medicine* 173:549-559, 1991; Macatonia et al., *Journal of Immunology*
154:5071-5079, 1995; Porgador et al., *Journal of Experimental Medicine* 182:255-260,
1995; Nair et al., *Journal of Virology* 67:4062-4069, 1993; Huang et al., *Science*
25 264:961-965, 1994; Macatonia et al., *Journal of Experimental Medicine* 169:1255-1264,
1989; Bhardwaj et al., *Journal of Clinical Investigation* 94:797-807, 1994; and Inaba et
al., *Journal of Experimental Medicine* 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others,
proteins that prevent apoptosis after superantigen induction and proteins that
30 regulate lymphocyte homeostasis) include, without limitation, those described in:
Darzynkiewicz et al., *Cytometry* 13:795-808, 1992; Gorczyca et al., *Leukemia*
7:659-670, 1993; Gorczyca et al., *Cancer Research* 53:1945-1951, 1993; Itoh et al., *Cell*
66:233-243, 1991; Zacharchuk, *Journal of Immunology* 145:4037-4045, 1990; Zamai et

al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad Sci. USA 88:7548-7551, 1991.

Hematopoiesis Regulating Activity

A protein of the present invention may be useful in regulation of hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell deficiencies. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines, thereby indicating utility, for example, in treating various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression; in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use in place of or complimentary to platelet transfusions; and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either *in-vivo* or *ex-vivo* (i.e., in conjunction with bone marrow transplantation or with peripheral progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. *Cellular Biology* 15:141-151, 1995; Keller et al., *Molecular and Cellular Biology* 13:473-486, 1993; McClanahan et al., *Blood* 81:2903-2915, 1993.

Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M.G. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, NY. 1994; Hirayama et al., *Proc. Natl. Acad. Sci. USA* 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I.K. and Briddell, R.A. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, NY. 1994; Neben et al., *Experimental Hematology* 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R.E. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 1-21, Wiley-Liss, Inc., New York, NY. 1994; Long term bone marrow cultures in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, NY. 1994; Long term culture initiating cell assay, Sutherland, H.J. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, NY. 1994.

Tissue Growth Activity

A protein of the present invention also may have utility in compositions used for bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as well as for wound healing and tissue repair and replacement, and in the treatment of burns, incisions and ulcers.

A protein of the present invention, which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Such a preparation employing a protein of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. *De novo* bone formation induced by an

osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A protein of this invention may also be used in the treatment of periodontal disease, and in other tooth repair processes. Such agents may provide an environment to attract bone-forming cells, stimulate growth of bone-forming cells or induce differentiation of progenitors of bone-forming cells. A protein of the invention may also be useful in the treatment of osteoporosis or osteoarthritis, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by inflammatory processes.

Another category of tissue regeneration activity that may be attributable to the protein of the present invention is tendon/ligament formation. A protein of the present invention, which induces tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to tendon or ligament tissue. De novo tendon/ligament-like tissue formation induced by a composition of the present invention contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide an environment to attract tendon- or ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors *ex vivo* for return *in vivo* to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel syndrome and other tendon or ligament defects. The compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

The protein of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, i.e. for the treatment of central and peripheral nervous system diseases and neuropathies, as well as

mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a protein may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or other medical therapies may also be treatable using a protein of the invention.

Proteins of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

It is expected that a protein of the present invention may also exhibit activity for generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring to allow normal tissue to regenerate. A protein of the invention may also exhibit angiogenic activity.

A protein of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A protein of the present invention may also be useful for promoting or inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for tissue generation activity include, without limitation, those described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, Epidermal Wound Healing, pps. 71-112 (Maibach, HI and Rovee, DT,

eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

Activin/Inhibin Activity

5 A protein of the present invention may also exhibit activin- or inhibin-related activities. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a protein of the present invention, alone or in heterodimers with a member of the inhibin α family,
10 may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the protein of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin- β group, may be useful as a
15 fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, United States Patent 4,798,885. A protein of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as cows, sheep and
20 pigs.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779-782, 1986;
25 Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

Chemotactic/Chemokinetic Activity

A protein of the present invention may have chemotactic or chemokinetic
30 activity (e.g., act as a chemokine) for mammalian cells, including, for example, monocytes, fibroblasts, neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. Chemotactic and chemokinetic proteins can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic proteins provide particular advantages in treatment of wounds and

other trauma to tissues, as well as in treatment of localized infections. For example, attraction of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

5 A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

10 The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce
15 the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al.
20 J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al Eur. J. Immunol. 25: 1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153: 1762-1768, 1994.

Hemostatic and Thrombolytic Activity

25 A protein of the invention may also exhibit hemostatic or thrombolytic activity. As a result, such a protein is expected to be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other hemostatic events in treating wounds resulting from trauma, surgery or other causes. A protein of the invention may also be useful for
30 dissolving or inhibiting formation of thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.

5

Receptor/Ligand Activity

A protein of the present invention may also demonstrate activity as receptors, receptor ligands or inhibitors or agonists of receptor/ligand interactions. Examples of such receptors and ligands include, without limitation, cytokine receptors and their
10 ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses). Receptors and ligands are
15 also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a protein of the invention may, among other means, be
20 measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static
25 conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

Anti-Inflammatory Activity

30 Proteins of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting

chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Proteins exhibiting such activities can be used to treat inflammatory conditions including chronic or acute conditions), including without limitation inflammation associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis, cytokine or chemokine-induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of cytokines such as TNF or IL-1. Proteins of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material.

Tumor Inhibition Activity

In addition to the activities described above for immunological treatment or prevention of tumors, a protein of the invention may exhibit other anti-tumor activities. A protein may inhibit tumor growth directly or indirectly (such as, for example, via ADCC). A protein may exhibit its tumor inhibitory activity by acting on tumor tissue or tumor precursor tissue, by inhibiting formation of tissues necessary to support tumor growth (such as, for example, by inhibiting angiogenesis), by causing production of other factors, agents or cell types which inhibit tumor growth, or by suppressing, eliminating or inhibiting factors, agents or cell types which promote tumor growth.

Other Activities

A protein of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including, without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or circadian cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination

of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition (including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the ability to bind antigens or complement); and the ability to act as an antigen in a vaccine composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

15

ADMINISTRATION AND DOSING

A protein of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources) may be used in a pharmaceutical composition when combined with a pharmaceutically acceptable carrier. Such a composition may also contain (in addition to protein and a carrier) diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2, G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. The pharmaceutical composition may further contain other agents which either enhance the activity of the protein or compliment its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein of the invention, or to minimize side effects. Conversely, protein of the present invention may be included in formulations of the particular cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent.

A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes on host cells will serve to present the peptide antigen(s) to T lymphocytes. The

antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunoglobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be combined with the pharmaceutical composition of the invention.

The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithin, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent No. 4,235,871; U.S. Patent No. 4,501,728; U.S. Patent No. 4,837,028; and U.S. Patent No. 4,737,323, all of which are incorporated herein by reference.

As used herein, the term "therapeutically effective amount" means the total amount of each active component of the pharmaceutical composition or method that is sufficient to show a meaningful patient benefit, i.e., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment, healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, the term refers to that ingredient alone. When applied to a combination, the term refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein of the present invention is administered to a mammal having a condition to be treated. Protein of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines, lymphokines or other hematopoietic factors. When co-administered with one or more cytokines, lymphokines or other hematopoietic factors, protein of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on

the appropriate sequence of administering protein of the present invention in combination with cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

Administration of protein of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

When a therapeutically effective amount of protein of the present invention is administered orally, protein of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule, and powder contain from about 5 to 95% protein of the present invention, and preferably from about 25 to 90% protein of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein of the present invention, and preferably from about 1 to 50% protein of the present invention.

When a therapeutically effective amount of protein of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art.

The amount of protein of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein of the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein of the present invention and observe the patient's response. Larger doses of protein of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01 µg to about 100 mg (preferably about 0.1mg to about 10 mg, more preferably about 0.1 µg to about 1 mg) of protein of the present invention per kg body weight.

The duration of intravenous therapy using the pharmaceutical composition of the present invention will vary, depending on the severity of the disease being treated and the condition and potential idiosyncratic response of each individual patient. It is contemplated that the duration of each application of the protein of the present invention will be in the range of 12 to 24 hours of continuous intravenous administration. Ultimately the attending physician will decide on the appropriate duration of intravenous therapy using the pharmaceutical composition of the present invention.

Protein of the invention may also be used to immunize animals to obtain polyclonal and monoclonal antibodies which specifically react with the protein. Such antibodies may be obtained using either the entire protein or fragments thereof as an immunogen. The peptide immunogens additionally may contain a cysteine residue at the carboxyl terminus, and are conjugated to a hapten such as keyhole limpet hemocyanin (KLH). Methods for synthesizing such peptides are known in the art, for example, as in R.P. Merrifield, J. Amer.Chem.Soc. 85, 2149-2154 (1963); J.L. Krstenansky, *et al.*, FEBS Lett. 211, 10 (1987). Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells, neutralizing monoclonal

antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalciumphosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalciumphosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability.

Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800

microns. In some applications, it will be useful to utilize a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent useful herein is 0.5-20 wt%, preferably 1-10 wt% based on total formulation weight, which represents the amount necessary to prevent desorption of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby providing the protein the opportunity to assist the osteogenic activity of the progenitor cells.

In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF- α and TGF- β), and insulin-like growth factor (IGF).

The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins of the present invention.

The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I),

to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy.

- 5 Such polynucleotides can be introduced either *in vivo* or *ex vivo* into cells for expression in a mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA).

- 10 Cells may also be cultured *ex vivo* in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced *in vivo* for therapeutic purposes.

Patent and literature references cited herein are incorporated by reference as if fully set forth.

TABLE 3

<u>Sel</u>	<u>Species</u>	<u>Stage</u>	<u>Tissue</u>	<u>Cell Type</u>	<u>Treatment</u>
PP	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None
PQ	Human	Adult	Tumor	ColorectalAdenocarcinomaSW480	None
PR	Human	Fetal	Kidney	N/A	None
PS	Human	Fetal	Kidney	N/A	None
PT	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None
PU	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
PV	Human	Adult	Brain	Cerebellum	None
PW	Human	Adult	Brain	Cerebellum	None
PX	Human	Adult	Brain	Cerebellum	None
PY	Human	Adult	Brain	Cerebellum	None
PZ	Human	Adult	Bone Marrow	N/A	None
Q	Mouse	Adult	Bone Marrow	N/A	5 fluoro-uracil
QA	Human	Adult	Cartilage	Chondrosarcoma HTB-94 line	None
QB	Human	Adult	Bladder	Carcinoma 5637	None
QC	Human	Adult	Neural	Neuroepithelioma HTB-10 line [†]	None
QD	Human	Fetal	Embryo	FHs173 We HTB-158	None
QE	Human	Fetal	Liver	N/A	None
QF	Human	Adult	Bladder	Carcinoma 5637	None
QG	Human	Adult	Neural	Neuroepithelioma HTB-10 line	None
QH	Human	Fetal	Embryo	FHs173 We HTB-158	None
QL	Human	Fetal	Heart	18 weeks gestation	None
QM	Human	Adult	Blood	Histiocytic lymphoma U937	None
QN	Human	Adult	Cartilage	Chondrosarcoma HTB-94 line	None
QO	Human	Adult	Brain	Corpus Callosum	None
QR	Human	Adult	Brain	Subthalamic Nucleus	None
QS	Human	Fetal	Whole Embryo	N/A	None
QT	Human	Fetal	Kidney	N/A	None
QU	Human	Adult	Blood	ChronicMyelogenousLeukemiaK562	None
QV	Human	Adult	Testis	Embryonal Carcinoma NT2D1	RA for 23 days
QX	Human	Adult	Bone	Ewing's Sarcoma RD-ES	None
QY	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
QZ	Human	Adult	Brain	Caudate Nucleus	None
RA	Human	Adult	Brain	Substantia Nigra	None
RB	Human	Adult	Kidney	293 embryonal carcinoma line	None

RC	Human	Adult	Kidney	293 embryonal carcinoma line	None
RD	Human	Adult	Kidney	293 embryonal carcinoma line	None
RE	Human	Adult	Brain	Amygdala	None
RF	Human	Adult	Bone Marrow	N/A	None
RG	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
RH	Human	Adult	Blood	Promyelocytic Leukemia HL-60	None
RI	Human	Adult	Brain	Subthalamic Nucleus	None
RJ	Human	Adult	Neural	Neuroepithelioma HTB-10 line	None
RK	Human	Adult	Tumor	Colorectal Adenocarcinoma SW480	None
RL	Human	Fetal	Kidney	293 cell line	None
RM	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RN	Human	Adult	Blood	Lymphoblastic Leukemia MOLT-4	None
RP	Human	Adult	Brain	Thalamus	None
RQ	Human	Fetal	Kidney	N/A	None
RR	Human	Fetal	Kidney	N/A	None
RS	Human	Adult	Tumor	Colorectal Adenocarcinoma SW480	None
RT	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RU	Human	Adult	Adrenal corte	Carcinoma SW-13	None
RV	Human	Adult	Brain	Cerebellum	None
RW	Human	N/A	Brain	Neuroectodermal Tumor CRL-2060	None
RX	Human	N/A	Nasal Epithel	squamous cell carcinoma CCL-30	None
RY	Human	Adult	Ovary	Ovarian Adenocarcinoma HTB-161	None
RZ	Human	Adult	Brain	Cerebellum	None
S	Human	Adult	Neural	Glioblastoma line TG-1	N/A
SA	Human	Fetal	Heart	18 weeks gestation	None
SB	Human	Fetal	Whole Embryo	N/A	None
SC	Human	Fetal	Kidney	293 cell line	None
SD	Human	Fetal	Kidney	N/A	None
SE	Human	Fetal	Kidney	N/A	None
SF	Human	Adult	Bladder	Carcinoma 5637	None
SG	Human	Fetal	Heart	18 weeks gestation	None
T	Mouse	Fetal	Brain	N/A	None
V	Mouse	Fetal	Brain	N/A	None
WA	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WC	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WF	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WG	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None

WH	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WI	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
WJ	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WK	Xenopus	11-12	Embryo	Fetal Vent. Mesoderm/Ectoderm	N/A
WL	Xenopus	Fetal	Embryo	Dorsal Mesoderm	None
Z	Rat	Fetal	Pancreas	N/A	None

Table 3 Cell Type and Treatment Key:

RA: retinoic acid

What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID

NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ

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[illegible]

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or a complement of said sequence.

2. An isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157,

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or a complement of said sequence.

3. An isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157,

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or a complement of said sequence.

4. An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157,

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or to a complement of said sequence.

5. An isolated protein encoded by an isolated polynucleotide of claim 1.

6. An isolated protein encoded by an isolated polynucleotide of claim 2.
7. An isolated protein encoded by an isolated polynucleotide of claim 3.
8. An isolated protein encoded by an isolated polynucleotide of claim 4.

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<110> Jacobs, Kenneth
 McCoy, John M.
 LaVallie, Edward R.
 Racie, Lisa A.
 Evans, Cheryl
 Merberg, David
 Treacy, Maurice
 Genetics Institute, Inc.

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<400> 7

gaattcgcgg ccgcgtcgac ccattgcttc ctggatcgtg gcaggacagt tcgcccgtgc 60
 agagcgggacc tcctcccagg tgaccattct ctgtaccttc ttcaccgtgg tgtttgccct 120
 ctacctggcc cctctcacca tctcctctcc ctgcatcatg gagaagaaag acctcggccc 180
 caagcctgct ctcattggcc accgcggggc ccocatgctg gctccagagc acacgtctat 240
 gtccttccgg aaggccctcg ag 262

<210> 8

<211> 175

<212> DNA

<213> Homo sapiens

<400> 8

gaattcgcgg ccgcgtcgac ggaaagccaa attgccaaaa ctcaagtcac ctcagtacca 60
 tccaggaggc tgggtattgt cctgcctctg ccttttctgt ctcagcgggc agtgcccaga 120
 gccacaccc cccaagagc cctcgatgga cagcctcacc cacccccacc tcgag 175

<210> 9

<211> 238

<212> DNA

<213> Homo sapiens

<400> 9

gaattcgcgg ccgcgtcgac ccgggtggcg gggcgcgcg gatggaggag tcttggggag 60
 ctgcgcccg aggccaagcc ggggcagagc tcccaatgga gccctggga agcctgggcc 120
 ccacgctgga gcagccgag gtgcccgcga aggtgcgaca acctgaaggt ccgaaagca 180
 gcccaagtcc ggccggggcc gtggagaagg cggcgggcgc aggcctggag cctcagag 238

<210> 10

<211> 387

<212> DNA

<213> Homo sapiens

<400> 10

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gaattcgcg cgcgctcgac gaaggaagaa cccatgggac tcccaaggcg gctgctgctg 60
ctgctgttgc tggcgactac ctgtgtccca gcctcccagg goctgcagtg catgcagtgt 120
gagagtaacc agagctgcct ggtagaggag tgtgctctgg gccaggacct ctgcaggact 180
accgtgcttc gggaaatggca agatgataga gagctggagg tggtgacaag aggctgtgcc 240
cacagcgaag agaccaacag gaccatgagt taccgcatgg gotccatgat catcagcctg 300
acagagaccg tgtgcgccac aaacctctgc aacaggccca gaccgggagc ccgaggccgt 360
gctttccccc agggccgcta cctcgag 387

```

<210> 11

<211> 520

<212> DNA

<213> Homo sapiens

<400> 11

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gaattcgcg cgcgctcgac cgcgctcgac cgcgctcgca gcgctcctggc gcggccgacg 60
ggaagcagcg gggctgcccc ggttacgctg gccaccogca cctggctcctg tggcttcgac 120
cactagttag caaggccccg gagaggccag cgaagagagg ggctcgttgg ctttacggag 180
acgcgcggag caccctcaag gtgccacacg ctgcctctgt cctgttctct acatcctggg 240
cgtcttccca ggctgtcata caactcctga gaatagtggg tcttaactct gtaagtatat 300
ataccctcgt acgocctatg gctggatgag ttacagccat ttccatgtag atgtctgtgc 360
atacgttcac acgcaaaact ctccgcaggt ttggagatct ccgtgttcag tcgtacctca 420
cgtgatcttg cactgccaac attgagaatc ctggccttag actatgcac tcccaaactt 480
aattatctgt ctcttcccta ttttcccaag acgactcgag 520

```

<210> 12

<211> 279

<212> DNA

<213> Homo sapiens

<400> 12

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gaattcgcg cgcgctcgac gcctagacag acacggagga ccacgcgccat gcaccgtcta 60
ccgctgctgc tcctgctggg ctgtgctgct gcaggctccg tcgcccctgc gcgectcgtc 120
ccgaagcgcc ttcccaact tgggtggctt tcctgggata actgtgatga aggaagggac 180
cctgcagtga tcaaaagcct cagcatccaa cctgacccca ttgtggttcc tggagatgta 240
gtcgtcagcc ttgagggcaa gaccagcggt ctctctgag 279

```

<210> 13

<211> 222

<212> DNA

<213> Homo sapiens

<400> 13

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gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctgaccatt ccaggagcct 60
cgggtgaagag aggatatcca tctgtgtagc cgcttctcta tacgggattc cagtccatg 120
gcagcccgctc tgcctctctt gggcatcctt ctctgtctgc tgcccctgcc cgtccctgcc 180
ccgtgccaca cagccgcacg ctccagagccg aagcaactcg ag 222

```

<210> 14

<211> 473

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (11)

<400> 14
gaattcgcgg nccgcgtcgac atcgttttct ttatgtggga gaagggaagga gtaacataaa 60
acatgttttt atcactcaaa gtaagcaatg gaggtaacaa atattgtgca ttttaacagt 120
aatatttgaa gatttgtaga atattcacct ttaaaactag ttagtatgca ttataaattt 180
taccagaata tacaactaac aattcaacag tgatgttctt tgcatttgtg gggagatgtg 240
tgatgttctt gggttttctg tttggaatgg aacgtttata gccttgctg taaaaatgtg 300
cccagcact taatgagtga ccgtttgaac ccatatgtag tccatttgg gctaatagaga 360
gtagctgctg tgaacacagga ataaaatgtg tctgttcacg gaggtgcggg gtggatgcac 420
ctacaaggcc aactctctga tcagggtgag ggagagatgg aagaatgctc gag 473

<210> 15
<211> 228
<212> DNA
<213> Homo sapiens

<400> 15
gaattcgcgg ccgcgtcgac gccgggtatc aataaaggat ctttttaaga cagtttaaat 60
taggttttct gttacttaga acaaaatata taaatgacac agaactctgaa gtggtcatta 120
ctatttgatt tccactctta tatgtctctg tcattgcttc cttgcatggg ggtgcgtgct 180
tgctgttgtt cccagatatt caaggctgag gcaggaggat cactcgag 228

<210> 16
<211> 535
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (21)

<400> 16
gaattcgcgg ccgcgtcgaa ncatgtctct cagaaaagta tacaaatggc tggcaggccc 60
aatteccact tcgctgggaa tccagtcctc acaagcccag gttcctaate tgggcctatt 120
tecagctcca aatacagogg tgatgcccga gtctgttttt ccagccctaa cttgttccca 180
agcttcagac cagtcactgg gtgtatccag tcacctccca acatctcccc aggggcccag 240
aagggtgtg gccttcagcc catccctgta tactctttcc ttacctcttc cacattttct 300
cctgtctccc catctagag gagtcacagg agcaccacc cggaaaccca ctccatgtcc 360
cactctctc agtcaagtc ccaagcgcca tcagcgtgct ctcctagcat ctcactccca 420
ctctctctt ttctcttca gtcccagcag ctccgctcag ggggctcctg ctcacttgg 480
gcttggtgac tacagaagcc tccctccaga accatctccc tccacgaggc tcgag 535

<210> 17
<211> 226
<212> DNA
<213> Homo sapiens

<400> 17
gaattcgcgg ccgcgtcgac ggggatactt tcaggcactg tcaatggcag tgctagggaa 60
tataaatgca tgtgtgttat acatctacac atatctctac atccatagga ttttattagg 120
aggggttttg tttttgttg aggcagggtc tctctctgtt gccaggctg aagtgcagt 180
gtgcaatcac agctcactac tgcagcatca acctcctggg ctcgag 226

<210> 18
<211> 437
<212> DNA
<213> Homo sapiens

<400> 18
gaattcggcc aaagaggcct acacacacac acacacacac acacacacac acacacacac 60
acagaaacaa atggaggaga aagagatagt gtggtagcaa taaatagtgc ctggctttga 120

```

agtgaagac ttgggtttga atattgactc tgcctcttct tagttccccc atctgcttcc 180
tctataacctt ggttgacacat gaggagcaaa tcaaatgaaa aatgcttata aatgtgaacc 240
tgtgagggtt agtgtggtat acagtcattgt cccagtttt ccatggggca tatattctaa 300
tactcccagc ggttgtctga aaccaccaa atagtactcc actctaaata tactatgttt 360
ttttctatac atacataacct gtgataaagt ttaatttata aattaggcac agtaagagat 420
taacgacctg cctcgag 437

```

<210> 19

<211> 378

<212> DNA

<213> Homo sapiens

<400> 19

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gaattcggcc aaagaggcct acaccattca tctttcttgg agacgttaaa actatccact 60
ggattcaata caactctgct tccactaaa aattctttaa aatgtccctc aaccttttcc 120
gtactgtaac catatgggag gtgatacagt gcctttcctt tgtgattaag gtcacggtag 180
tcacttggaa ggatccttta agcttccaga aatgacttaa tctctaagat attgcaaat 240
gttcttcaact cagttagttg gttttgttcc caagtccgac ttctgagtac agcaagttag 300
gtggcttcgg gcagtcagct cctgaccccc cctaaaaaga aagggcaggg cctgcagtgg 360
acagcagcca gactcgag 378

```

<210> 20

<211> 338

<212> DNA

<213> Homo sapiens

<400> 20

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gaattcggcc aaagaggcct acacgcctct ccgggacaaa taccctttgt ctgaaaacca 60
caataataac accttctca aacacttgga aaatcctccc acatcgcaga gaattgagcc 120
cagatatgac attgtgcatg cagtgggaga gcgtgtgcac agcagggcca tctcaccggc 180
accggaggag aaagcggcca cgtccgcag cctcaggctt tggctctcac tgaaggacag 240
gcagctgtcc caggaggcca cccctgctga cctggagtgt ggtttggaag gtcaggcggg 300
gtccgtccaa agggccagtt tgatttggga agctcgag 338

```

<210> 21

<211> 559

<212> DNA

<213> Homo sapiens

<400> 21

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gaattcggcc aaagaggcct agctaaatat tatgactggc tatagttaaa ataataataa 60
tacttttgtt tgttgttta tagtaaaata ataataatac tttgtttt ttgagacaga 120
gtctactctt gtctcccagg ctagagtgcg gcggtgagat ctcggcttgc tgcaacctcc 180
gcctcccggg tttatgcgat tctctgcct cagcctcccg agtacctggg attacaggtg 240
cccgccacca cgcctggcta attttttgtt atttttaata gagatggggg ttcaccatgt 300
tggccaggct tgttttgaac tcctgatctc aagtgatctg ccggcctcgg cctcccaaag 360
ataataatac ttttaaaatg aaaggtagga aggaggcatt tgaacaatg gtgagatgtt 420
aagcttgaga attatggaga ataactatcc tggtagaaaa aacagaaat aaaatatggt 480
gatagttttg tttcaggttt tttacttgtt ttctcttttg tctttggaag gtctgtttgt 540
ttcaagttag catctcgag 559

```

<210> 22

<211> 283

<212> DNA

<213> Homo sapiens

<400> 22

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gaattcggcc aaagaggcct agttagaatg taaggatat cattctaaag atagagtaaa 60
aagaaaaaaa aacaaaaagt tattaaaatt gttgtccggg ttactttaac ttagttttgc 120
atagttctag tgcagctgaa attgaaaagt tatttccctt tagctgtgtt attatagagc 180

```

agaaattctg tttttaaaaa ctaggcctaag atatacttgt ttttgtaaag aaaaatattt 240
aatgttgaac aaaataaatt ggagttggag tagaatactc gag 283

<210> 23

<211> 314

<212> DNA

<213> Homo sapiens

<400> 23

gaattcggcc aaagaggcct aatctacagt tgctgatgga cagagtggat gaaatgagcc 60
aagatatagt taaatacaac acatacatga ggaatactag taaacaacag cagcagaaac 120
atcagtatca gcagcgtcgc cagcaggaga atatgcagcg ccagagccga ggagaacccc 180
cgctccctga ggaggacctg tccaaactct tcaaaccacc acagccgcct gccaggatgg 240
actcgtgctc cattgcagggc cagataaaca cttactgcca gaacatcaag gagttcactg 300
cccaaaaact cgag 314

<210> 24

<211> 284

<212> DNA

<213> Homo sapiens

<400> 24

gaattcggcc aaagaggcct agcgacaagc aagtgcaga aagttcattt gtaatttgtt 60
cagttgtctg tcttttgcac atctgcattc tgaccagaag gaactttgag gtttttctgc 120
agcacatgag catctgcggg ctctatcctc ttatagtagt tcttctttgt ctcaataatc 180
tcaaagccaa acttctgtga gaagtcaatt gccgactcat tgctgatctg gacatgcaga 240
taaattgtgt caaaagtacc atctttttca cagatgttct cgag 284

<210> 25

<211> 161

<212> DNA

<213> Homo sapiens

<400> 25

gaattcggcc aaagaggcct agtaggtgaa aatttataat atcaactgca cttaaaatat 60
ttgccagcca gcttcattca tcacatattt cctaaataag aataatcagg cagttttgac 120
agaaaaataa aatgtgtccc aaaagaagtc cgtacctega g 161

<210> 26

<211> 672

<212> DNA

<213> Homo sapiens

<400> 26

gaattcggcc aaagaggcct agctaatttc ccttgacctc cagctggttt ccaagctggt 60
ttaggagagg aagacagagt ttccaagtta ggagagggaag acagagttcc aagtgaatgc 120
catccacata ccaccttccc agaccccata gctcacaggg ccccataggt catcagctct 180
tactttctcc ctctggaaag gaatggaaga agaggtgaaa tgttacttca tttggaagcc 240
tcctaccatc tctatctgaa cctggctccc tctccctagg cagcaaaacc aaattcccaa 300
acctacctac gtcagcgatg gcctgcttga tatttcagag aagagggacc cctgaggact 360
tcacctcaga ttcttggaag aatgtgatc agtccacagt agcctttcag agactgtata 420
ctcaagccag accaaagtat cctcttccc attcagagcc agtgaggacc tgtctctgtc 480
cctgctcctc ctgtgccctc tgtgtgcggg gtcctttccc atctctgct ggcttacatg 540
gcttcaagct ccacctcaaa gcgtcctgca ccaggcattg ccagcgatct ccccttcaca 600
atggtctagc tcctatggtc tgtgtctcct tatttctctt gaccttcttt ctttcacccc 660
tgtgcactcg ag 672

<210> 27

<211> 144

<212> DNA

<213> Homo sapiens

<400> 27

gaattcgcgg ccgcgtcgac aagagccact ggcctgtaat tgtttgatat atttggtaaa 60
actotttgta taatgtcagg ttcaaggaca cactgttcca caatttcccg taagtgggg 120
ttttccattg cagctaccct cgag 144

<210> 28

<211> 250

<212> DNA

<213> Homo sapiens

<400> 28

gaattcgcgg ccgcgtcgac cctaaaccat ctacttccca gtcttcttct tagatttatt 60
cctttcttct cttectctcc agttagggtg gagcttttct aattctttaga atataccaag 120
tttactccct accttaaggc cttcacattt gttgtctcaa cctgaatgct cttacattag 180
atacagtatg gtttgcctct ttatttctct catatttctc ttcataatac ttgtccccag 240
aaagctcgag 250

<210> 29

<211> 277

<212> DNA

<213> Homo sapiens

<400> 29

gaattcgcgg ccgcgtcgac cctcaggagc tatacaacag aaacaacaaa cacaagtga 60
aaaccctctg aacttagcag acctagatat gtttctctca gtttaattgca gcagcgagaa 120
accattgtct ttttcagctg tgtttagcac atcaaaatca gtttctacac cacagtcaac 180
aggttctgct gctactatga cagcattggc agcaacaaaa acttctagtt tggctgatga 240
ttttggagaa ttcagccttt ttggggaatc actcgag 277

<210> 30

<211> 258

<212> DNA

<213> Homo sapiens

<400> 30

gaattcgcgg ccgcgtcgac tgtgaatggt aatattcctg aaaagactac agcactgaat 60
aatatggatg gcaagaatgt taaagcaaaa ttggatcatg ttcaatttgc agaatttaag 120
attgacatgg attctaaatt tgaaaatagc aacaaagatt taaaggaaga attgtgccct 180
ggaaatctaa gtctagttga tacaaggcaa cacagttcag cacattcaaa tcaagataaa 240
aaagacgatg agctcgag 258

<210> 31

<211> 308

<212> DNA

<213> Homo sapiens

<400> 31

gaattcgcgg ccgcgtcgac gtctgcagtc caattaattt ctgaagtatt tctaaagaga 60
taaaattcca aactgtaaaa aggcaagttt taattccgtg ataaagtaca tttatgtgaa 120
atatctcatt ccttagtaat tcttgaggcg actgtgaaag gaggatggaa gaaatccagt 180
acttttactc tttacattgg acaagttatt tgtggagata attgctcaat ttcagtatga 240
gtgcagtgat tttgatgcag ttgtgttttt ctttttttatt ctttttttggg gaaggctctc 300
agctcgag 308

<210> 32

<211> 338

<212> DNA

<213> Homo sapiens

<400> 32

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gaattcgcgg ccgcgtcgac gtaaccaacc atttcagcat ctgggttgct actagcctca 60
gcatatttta ttgtctcaag attgccaatt tctccaactt tatttttctt cacttaaaaa 120
ggagaattaa gagtgtcatt ccagtgatac tattgggggc ttgtttattt ctggtttgtc 180
atcttgttgt ggtaaacatg gatgagagta tgtggacaaa agaatatgaa ggaaacgtga 240
gttgggagat caaattgagt gatccgacgc acgttttcaga tatgactgta accacgcttg 300
caaacttaat accctttact ctgtccctgt tactcgag 338

```

<210> 33

<211> 217

<212> DNA

<213> Homo sapiens

<400> 33

```

gaattcgcgg ccgcgtcgac ttggggggga agtaaaaatt actctattat taaagtgtt 60
gttacagcca ctgatctgta cattaaaaat ttgtgaaatt attacaaata aattaaagct 120
tggtaaaatt gattgaaaaa acgttatggg ccaggcgagc tggctcatgc ctgtaatctc 180
aacagtttgg gaggccaaag caagcggatc actcgag 217

```

<210> 34

<211> 395

<212> DNA

<213> Homo sapiens

<400> 34

```

gaattcgcgg ccgcgtcgac ctgaaatcga gccgatctcc attttctggg actatgacag 60
ttgatggaaa taaaaattca cctgctgaca catgtgtaga ggaagatgct acagttttgg 120
ctaaggacag agctgtctaat aaggaccaag aactgattga aaatgaaagt tatagaacaa 180
aaaacaacca gacctgaaa catgatgcta aaatgagata cctgagtgat gatgtggatg 240
acatttctct gtcgtctttg tcattctctg ataagaatga ttttaagtga gacttttagtg 300
atgattttat agatatagaa gactccaaca gaactagaat aactccagag gaaatgtctc 360
tcaaagaaga gaaacatgaa aatggggcac tcgag 395

```

<210> 35

<211> 183

<212> DNA

<213> Homo sapiens

<400> 35

```

gaattcgcgg ccgcgtcgac gggagcaagg ataaaagaac aacaaaagac agaaaatttt 60
taatactagg gaaatttagag catgtttgtg gacagaagga gaacaatcag aagacaggaa 120
gagaaaatag aaaataaaat agaagcacct aaaccgtcga ttgaattctg gctgcactc 180
gag 183

```

<210> 36

<211> 248

<212> DNA

<213> Homo sapiens

<400> 36

```

gaattcgcgg ccgcgtcgac gtttgaagtc cattgaactt tgtggatgtg taaattatgt 60
ttttcatcaa attgggcaag ttttttagcca ttatttctcc taaatttttc tgctttttcg 120
tctgtacct tggttactcc cattacacat atgtcagtat atttaattgt atccatact 180
tctctcatgc tctgttcatt tttctttact cttttttctc tctcttcttc agatggcata 240
aactcgag 248

```

<210> 37

<211> 222

<212> DNA

<213> Homo sapiens

<400> 37
 gaattcgcgg ccgcgtcgac cgagtcgggt gacaaagtga gacctgtgt ctaaaaagag 60
 agagagaaaa aaagctaagg ctattttcag gttaggtcag gcttagtaac aaaaactttt 120
 tgtgaaatgc ttcgatcatt gtttgcctg ctccctaatt cccttaaaac ctcccgatc 180
 agacaggtgg tctttgaaga tgagttcaca gectccctcg ag 222

<210> 38
 <211> 264
 <212> DNA
 <213> Homo sapiens

<400> 38
 gaattcgcgg ccgcgtcgac gtctggcctt ctttaattct ccatctgtac ccttttttag 60
 gtgagtcag atctgacctg tttttctgag ctgcagactt gtttatctaa ttgtctaat 120
 gacatccaact tggatgtctg atagttatcc cagatctaac attggccaaa tcgctctttt 180
 ttccccccaa atctcccttg atttctctt taaaaccccc ttctcaaage tatgtctaaa 240
 ctaaaattct taggagctct cgag 264

<210> 39
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 39
 gaattcgcgg ccgcgtcgac cttacataaa tttccatact cttttttat tctgacgtta 60
 tacaatgaag aaagcaaagt tgaaattgc atgtcatatg tgcctgtta tgtatgccta 120
 catacattgg gtatgtgaga ttgtggcggg ggggtggtcc cctagctttt tgtctataat 180
 ttctgatttt attgcaataa atttaacta caacacagag ctcgag 226

<210> 40
 <211> 257
 <212> DNA
 <213> Homo sapiens

<400> 40
 gaattcgcgg ccgcgtcgac ctagtattatg agtttattct tctgtcgtt tttggagttt 60
 gtttttgttt ttctagtttt tttagggtcg aggtgaggtt gtttaattgga cgtctatctc 120
 cttggtgtag acgttttagt ctgtctagtc ctcttaacac tgtgtttgtc gcaaccacaga 180
 ggttttggcc tgttttcatt ttttaacaaa tgattttgtt ttctgtcata attttcttgt 240
 ttaccacaaa cctcgag 257

<210> 41
 <211> 220
 <212> DNA
 <213> Homo sapiens

<400> 41
 gaattcgcgg ccgcgtcgac tgcaagtaag gactatggaa aatttccaaa ccagattgga 60
 tcgttcagaa gccattcttc tgttgattct ttacactttc ctccattag ccgaaagaat 120
 tgagagccaa cttttccaaa tgccccgtc cccgttagca ggcaccaaag agctcatttc 180
 atttctgtct gccagcttaa tactcaccag ggcactcgag 220

<210> 42
 <211> 289
 <212> DNA
 <213> Homo sapiens

<400> 42
 gaattcgcgg ccgcgtcgac gttacttcgg caacaagttc ttttaccctt acccgtggta 60
 tttgaaaaaa atcaaggtaa ctgtctgaat accttaatat cagcttggtt tgtgaattct 120

ctgaatactg tcaacactct tatctaagtt tgcctttatg atgcagtggc agcattttga 180
 attacttttc aaagaatact gtccatatgc attgtttttg tggttcaaac taaatacagg 240
 cagttttgtg ccagctgtga tattgtgcat accatatgga cacctcgag 289

<210> 43
 <211> 252
 <212> DNA
 <213> Homo sapiens

<400> 43
 gaattcgcgg ccgcgtcgac ttttaacttaa aaattggctg tcattctcaga atttaactta 60
 aatttataca aatatttttg tagtagttaa taggtatatt ggtagtaatt tggtagtttg 120
 gtacatttgg tagtaattaa taggtacatt tcttgctgt gtagattgtt taagaaaaca 180
 gtgataatta tgcaagaaa tgttcaaata actgtttggg tagtgatttt ggcttatttg 240
 gtcactctcg ag 252

<210> 44
 <211> 162
 <212> DNA
 <213> Homo sapiens

<400> 44
 gaattcgcgg ccgcgtcgac ctaagtcca cattttatgt agattccact agttttccca 60
 ttaagtcca tttctgttct agaatccaat ctttttcttg tatgctatgg attatcagac 120
 cctcacttg ggttctctct acatcaccaa gatgtgctcg ag 162

<210> 45
 <211> 281
 <212> DNA
 <213> Homo sapiens

<400> 45
 gaattcgcgg ccgcgtcgac cttcttattt ctttgcctgat gcattatctgc cgagtcttgg 60
 ttctgttttg ggctctatgt ccagcaagtg atagtctcat taggagcgtg gtagaacata 120
 gcgaagcctg gcatttgggt cctccctctg tctcccaaag tgcctgggatt acaggcgtga 180
 gccactgcgc ctggtctggt tcttcccgta tgtgtgccac ataccgtgag ccattcagat 240
 ggatgaaagc aaacttcctt ataaaaggcc agaagctcga g 281

<210> 46
 <211> 265
 <212> DNA
 <213> Homo sapiens

<400> 46
 gaattcgcgg ccgcgtcgac caccagacaa ctctatgagg gcagaaatta gatctatttt 60
 gctcatcatt gtatctccag agtccaacac aatgccagc attggagtaa ggtattttaa 120
 tattttaaaa aaattttttt tgagagacag ggtctccctc tgcacccag gctgggggtg 180
 agtggcacc tcattggctca ctctaacagc ctctggggt caagcagtca gaactacagg 240
 tatgtgctac cacaccgagc tcgag 265

<210> 47
 <211> 336
 <212> DNA
 <213> Homo sapiens

<400> 47
 gaattcgcgg ccgcgtcgac aaagtgcctg aaaatcatgt tcttgcctt gagtaagagt 60
 caatcagagt aaatgcattt ctggagtgtt tctgtgatg taaattatga tcattattta 120
 agaagtcaaa tcttgatctt gaagtgcctt ttatacagct ctctaataat tacaaaatac 180
 cgaagatcat tcttgggaac acaagtggag tatgccaaat tttatatgaa tttttcagat 240

tatctaagct tccaggtttt ataattagaa gataatgaga gaattaatgg ggtttatatt 300
 tacattatct ctcaactatg tagcccgctt ctcgag 336

<210> 48

<211> 703

<212> DNA

<213> Homo sapiens

<400> 48

gaattcgcgg ccgcgtcgac gggacgtgaa attgacagtg aaaagtatgg cagatgagca 60
 agaaatcatg tgcaaatggg aaagcattaa agagatcagg aacaagaccc tgcagatgga 120
 gaagatcaag gctcgtttga aggctgagtt tgaggcactt gactcagagg aaaggcacct 180
 gaaggaatac aagcaggaga tggaccttct gctacaggag aagatggccc atgtggagga 240
 actccgactg atccaagctg acatcaatgt gatggaaaac actatcaaac aatctgagaa 300
 tgacctaaac aagctgctag agtctacaag gaggtgcat gatgagtata agccactgaa 360
 agaacatgtg gatgcctgc gcatgactct gggcctgcag aggtccctg acttggtgta 420
 agaagaggag aagctttctt tggattactt tgagaagcag aaagcagaat ggcagacaga 480
 acctcaggag cccccatcc ctgagtcctt ggccgctgca gccgctgccg cccaacagct 540
 ccaagtggct aggaagcagg atactcgga gacggccacc ttcaggcagc agccccacc 600
 tatgaaggcc tgcctgtcat gtcaccagca aattcacccg aatgcacct tatgccctct 660
 ttgcaaggcc aagagtcggt cccggaaccc caataaactc gag 703

<210> 49

<211> 247

<212> DNA

<213> Homo sapiens

<400> 49

gaattcgcgg ccgcgtcgac cagctcatca gcatcacgta ctcatccctg cacatctcat 60
 ggaaggctgg acacctcttc tcaactacaag gcttcacctc ctctccggtg cctcgcagg 120
 ggtagccctg cgtgcccgtg gacctggcaca tgcgggaagcg gcgctgccag cctgtgtcac 180
 acgtcttaga gcacaggctc cagcattccc atggccccca cttgctatca gtggccgggc 240
 actcgag 247

<210> 50

<211> 290

<212> DNA

<213> Homo sapiens

<400> 50

gaattcgcgg ccgcgtcgac aaataatacg tattccatac tcaggatagc tggttagcta 60
 gcaaaagaat taacatttgt gatatttact tgcaaacctt actgaagcca tattcattat 120
 cttccttgtc accaaggctg ttgaccttaa ataaacatta agttgatttt gcacaacact 180
 gtatttgtgt gtgtgcatgt gctgtttttt gtgtgtgtat gtttgtggga aataattatg 240
 tttgtttcgc catatattca tttttaatgc attctgtaac ttttctcgag 290

<210> 51

<211> 417

<212> DNA

<213> Homo sapiens

<400> 51

gaattcgcgg ccgcgtcgac cgactgagcc ggggtggatg tactgctgca tccgggtgtc 60
 tggaggctgt ggccgttttg ttttcttggc taaaatcggg ggagtgagge gggccggcgc 120
 ggcgcgacac cgggctccgg aaccactgca cgacggggct ggactgacct gaaaaaatg 180
 tctggatttc tagagggtct gagatgctca gaatgcattg actgggggga aaagcgcaat 240
 actattgctt ccattgctgc tgggtgacta ttttttacag gctggtggat tatcatagat 300
 gcagctgtta tttatccac catgaaagat ttcaaccact cataccatgc ctgtggtgtt 360
 atagcaacca tagccttccc aatgattaat gcagtatcga atggacaagt cctcgag 417

<210> 52
 <211> 379
 <212> DNA
 <213> Homo sapiens

<400> 52
 gaattcgcgg ccgcgtcgac tgaagatgct gcggtctggca ctaactgtga catctatgac 60
 cttttttatc atcgacacaag cccctgaacc atatattggt atcaactggat ttgaagtcac 120
 cgttatctta tttttcatac ttttatatgt actcagactt gatcgattaa tgaagtgggt 180
 attttggcct ttgcttgata ttatcaactc actggtaaca acagtattca tgcctatcgt 240
 atctgtgttg gcactgatac cagaaaccac aacattgaca gttggtggag ggggtgttgc 300
 acttgtgaca gcagtatgct gtcttgccga cggggccctt atttaccgga agcttctgtt 360
 caatcccagc ggactcgag 379

<210> 53
 <211> 105
 <212> DNA
 <213> Homo sapiens

<400> 53
 gaattcgcgg ccgcgtcgac aagaagcgta tggactacta tgactctgaa caccatgaag 60
 actttgaatt tatttcagga acacgaatgc gcaactcgc tcgag 105

<210> 54
 <211> 237
 <212> DNA
 <213> Homo sapiens

<400> 54
 gaattcgcgg ccgcgtcgac gttgatgggt agaatgatgg cagctgctgt ttgttgggca 60
 ccagctgtgg tcaggtacag tgctaagcac ttttaattaca ctgttaagtc accaggacag 120
 aaactcccc acaccagctc tgtaataggg gtgagtgttg gacataagca gggagttgac 180
 aagaagccaa gactaggctg ggcacagtgg ctcacgcctg taattccagc cctcgag 237

<210> 55
 <211> 220
 <212> DNA
 <213> Homo sapiens

<400> 55
 gaattcgcgg ccgcgtcgac gaagaagaa aaactagcaa acatttgaga aatttagcaa 60
 ctgttttttt ttaataaag caatttgttc taataattat ttcctaatca tcttaaaata 120
 cgctgtcatt aacggcagag aaagctcttt atttcctttt gaattttaat actgggtaga 180
 aatataattt acaatgaaag tcagcaggaa agaactcgag 220

<210> 56
 <211> 247
 <212> DNA
 <213> Homo sapiens

<400> 56
 gaattcgcgg ccgcgtcgac caaaaataaa taagctcagg aataaagtga attggaagac 60
 agaaataatt tctgaaatga accagatata tgaggataat gataaagatg cacatgtcca 120
 agaaagctat acaaaagatc ttgattttta agtaataaaa tctaaacaaa aacttgaatg 180
 ccaagacatt atcaataaac actatatgga agtcaacagt aatgaaaagg aaagttgtaa 240
 tctcgag 247

<210> 57
 <211> 229
 <212> DNA

<213> Homo sapiens

<400> 57

gaattcgcg cgcgctcgac gtgtgttgga aaacacgtg ggctcaatga aaaacccctt 60
 tcggcccagt cctttgcctc cacattccag ctggcgccc tcagccacac cactctggat 120
 gaggttcaag atcttgttgt actgtttctt atcaatctgg ggaccctgct cagtgggtgg 180
 gtcaaaggga ctcccacta cgcgcctctt ggcccgctcc acactcgag 229

<210> 58

<211> 146

<212> DNA

<213> Homo sapiens

<400> 58

gaattcgcg cgcgctcgac tgaggagag attggtcagt ctgttcaaaa ttacagatag 60
 gaagaagagt aagttctggg gttctcttgc acagtagggt aactatgggt aacaatattg 120
 catatttcaa aacagctggc ctcgag 146

<210> 59

<211> 139

<212> DNA

<213> Homo sapiens

<400> 59

gaattcgcg cgcgctcgac cctgcacct gtctgtctga caaacacctt cttatttgat 60
 gctattcaag cctcacctcc tcttactcgg cactccttcc tactttcatt ttccagatga 120
 aaataaccac ttcctcgag 139

<210> 60

<211> 325

<212> DNA

<213> Homo sapiens

<400> 60

gaattcgcg cgcgctcgac cctttccggt tgatttgtca ctgcttcaat caataacagc 60
 cgctccagag tcagtagtca atgaatatat gaccaaatat caccaggact gttactcaat 120
 gtgtgcgag cccttgccca tgcctgggctc cgtgtatct ggacactgta acgtgtgctg 180
 tggttgcctc ccttcccctt ccttctttgc ccttacttgg tctttctggg gttttctctg 240
 ttgggttttg tttggttttt atttctcctt ttgtgttcca aacatgaggt tctctctact 300
 ggtcctctta accatgggtg tcgag 325

<210> 61

<211> 241

<212> DNA

<213> Homo sapiens

<400> 61

gaattcgcg cgcgctcgac tcttattcct tcttgaaaat ttaagtgtt atggttttat 60
 atagttcagt tctttgagat ttttgaaaag agtattttca gtaataaacg tgccatctct 120
 atctcttaaa catttattac aacaattgtt ttaaaataga aaaaataaaa tgcttctatt 180
 ttaccctttt ttcatttcag aagcattatt ctgtttatta acagtgtccc atctctctga 240
 g 241

<210> 62

<211> 392

<212> DNA

<213> Homo sapiens

<400> 62

gaattcgcg cgcgctcgac gcacgtggca ctggaggagc ggcgttttgc acccccaggc 60
 ttcaggyaag ttctcaatag aaaaccatt agttgtctca tatgactggt attaaactctg 120

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acctaaaaaa aaaatcaagc cagaaacagt gtgttgagca agaaaggaaa aaagattcct 180
tattaaaagt tcaaacataa acagaaggct caggacctcc ttgactacct ctcttgccac 240
gtggcccgagg agaaaccatg gctggcagtt taacagccac cctcctgctt ctgctctgtg 300
cattttgttg atgcacatcc acgtttttct tttcttttga gacagggtct cactctgttg 360
cccaggctgg aatgcaatgg cgcgatctcg ag 393

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<210> 63

<211> 293

<212> DNA

<213> Homo sapiens

<400> 63

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gaattcgcg cgcgctcgac aggtccagt ttcctgtatg cattggatgg aagtacagt 60
agaaagcagt gttctcacat ctttttataa tgctgaggat gaatcaaatc ttctcttacc 120
taaaactacct acactgccaa aaaactatag caacacctca aaaatatatta gtgaagaaaa 180
ttctgatgaa attattaagc tcttgggaga cgtcaggctt aatattctcg tccttggagg 240
aagctctgga tttattgagc tttatgctta tggaatgttt aaaattgctc gag 293

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<210> 64

<211> 449

<212> DNA

<213> Homo sapiens

<400> 64

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gaattcgcg cgcgctcgac ccccttccaa aagcaaaaag aagcctcgaa agtgaatgt 60
atctggaagg tctgggcaga tcacacattg ctccccccag tccttgctct gacagaatgc 120
ccctaccatc acccactgag tctaggcaca gcctctccat cctcctgtc tccagccctc 180
cggagcagaa agtgggtctt tctcgaagac aaactgaact tcaagacaaa agtgaatttt 240
cagatgtgga caagctagct ttttaaggata atgaggagtt tgaatcatct tttgaatctg 300
cagggaaacat gccaaaggcag ttggaaatgg gcgggcttct tcctgccggg gatatgtctc 360
atgtggacgc tgctgcagct gctgtgcccc tctcatatca gcacccaagt gtagatcaga 420
aacaattga agaacaaaag gaactcgag 449

```

<210> 65

<211> 247

<212> DNA

<213> Homo sapiens

<400> 65

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gaattcgcg cgcgctcgac ggggctggag tataatagga gcggagagat agaaaagaga 60
ggcaaaaggaa gatcacagcc atcacaaaagc aatctaggca gaaagtgata ggaaaaaaag 120
gagaaactat tcattctcaa ctattgctgg tatacacaaa cctctgaaaa tagccaatta 180
gtgttagatg ttctatcagg cgtggggaat ggggatggtt acaaaattca tcctcccagt 240
tctcgag 247

```

<210> 66

<211> 227

<212> DNA

<213> Homo sapiens

<400> 66

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gaattcgcg cgcgctcgac cgcggccgag tcgacctgct ggcagggttt ttttgtttta 60
tttgtttgct tttttttaaa ttaactgttt tgagctttga atacttaagg ctttagaggg 120
agaacccaat tttcaattat gttggctttt tataaagctt gagttatgta agatttaaat 180
aaaagtttgc taccaagatg attgccttat tgaatagatc actcgag 227

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<210> 67

<211> 384

<212> DNA

<213> Homo sapiens

<400> 67

gaattcgcg cgcgctcgac tgacattcct gttggagact tacatccagg ggaacagctg 60
 gaaaaaatgt tgtatgttcg ctgtggaaca ggggggtcca gaatgtttct tgtatatgtt 120
 tcttacctga taaatacaac cgttgaagaa aaagaaattg tttgcaagtg tcacaaggat 180
 gaaactgtaa caattgaaac agtctttcca tttgatgttg cggttaaatt tgtttctacc 240
 aagtttgagc acctggaaag ggtttatgct gacatccctt ttctgttgat gacggacctc 300
 ttaagtgcct caccctgggc cctcactatt gttccagtg agctccacct tgctccatcc 360
 atgaccacag tggaccagct cgag 384

<210> 68

<211> 302

<212> DNA

<213> Homo sapiens

<400> 68

gaattcgcg cgcgctcgac ctaaaccgtc gattgaattc tagacctctc acccaagctc 60
 ctctctcctt gcagtgaaga cctccccctc cagtaacctt ttttctctgt gaaaacccct 120
 caaccctttt tcaggacctc tctcaacccc atcttcccat ttgtgtcca ccagtccct 180
 ccccaacctg ccaatatttc aataaccca cgccaccag ttgtgtccg ttttctgccc 240
 caatgcacat accctggaac ctggtttctc tccttctgtg gggcccaacc cccctctctg 300
 ag 302

<210> 69

<211> 184

<212> DNA

<213> Homo sapiens

<400> 69

gaattcgcg cgcgctcgac gatacaatct gaaaatgata aaaatttcga cgatgaagat 60
 tctgtggatg gtaacagacc tctctctgct agttctacat catccaaggc tccaccaagt 120
 tctcggagaa acgttggaaat gggaaccacc cgcgggtctg gttcatccac ccttggacct 180
 cgag 184

<210> 70

<211> 262

<212> DNA

<213> Homo sapiens

<400> 70

gaattcgcg cgcgctcgac caaaaacaaa acaaaacaaa aaactttgc ccaattcttt 60
 ttatattgtt gtgtctctct aggttatcac ctgaagggat atttatggac tgaagagttg 120
 ttagtattat ttgtgtatct ttaactttgt tagaatacat acttatcttc taatgaaatt 180
 attccagaaa actttaaaag agtcatttaa attgcctgtt agtatagtta caaaattgac 240
 agagcagtg caaaaactcg ag 262

<210> 71

<211> 166

<212> DNA

<213> Homo sapiens

<400> 71

gaattcgcg cgcgctcgac aaaggatgga caacaaaaac aaatgcctat gtgtgataac 60
 catgatgatg gtgaaactgc agcaatcatt ttatgcaatg tctgtgaaa tttatgtaca 120
 gactgtgaca gattccttca ccttcacga agaaccacaa ctcgag 166

<210> 72

<211> 370

<212> DNA

<213> Homo sapiens

<400> 72
 gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt gtaagccaaa ctgctgtaa 60
 gtcggggact gtctgtatac cctaaagtga tttccctatc cttcccaaaa cgcactcttc 120
 ctatattatc tgatttaaga aataggagta ataccactta ccttacagct ccctgggtca 180
 ctctctcatt gagttaacca atagatcttt gaattccctaa cctttttcct atccatcctt 240
 cccttttcag tggtctgttc ctatgctagt tcatgccttc ttacatctct tgctgaggtt 300
 tttccatatt ctcgtaacct gtctccttgc gtctactctt cagtctgtct tccttaccac 360
 cagactcgag 370

<210> 73
 <211> 287
 <212> DNA
 <213> Homo sapiens

<400> 73
 gaattcgcgg ccgcgtcgac ggcaccaagc ggaaaataaa ctccaacctg ggcaacagag 60
 caagactctg tctaaaaaaa aaaaaaagtt aatggcattt ctatccctgt cttgctaact 120
 agaaacctgg gaggagactc aagactgttc tcttcagtcg gcttcccatg cctattttat 180
 atcccactag tttattttat gagctatgtc tcaaaatcat actcttctct ctttgtctct 240
 cttacttgat cattgggtcag gctgtacct tcagccaccc tctcgag 287

<210> 74
 <211> 212
 <212> DNA
 <213> Homo sapiens

<400> 74
 gaattcgcgg ccgcgtcgac ccaatgagga aggcacaagaa aatcgagacc gggacagaga 60
 ctatagtcgg cgacgtggtg ggcaccaag acgggggaga ggtgccagcc gtggacgaga 120
 gtttcgaggt caggaaaatg gattggatgg caccaagagt ggagggcctt ctggaagagg 180
 aacagaaga ggcagaagga taccggctcg ag 212

<210> 75
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 75
 gaattcgcgg ccgcgtcgac acccctcccc catccaactt tcaggttatc tgaataataa 60
 gactagtat aaattgacaa gttgtcggga aattttgcag caataaaggg ggcaagtga 120
 aggcagagca cttcttagat cttgactttt ccattggcca tgtaagatca ctaactgtt 180
 catttatatt tcgacagtta gcacctgctg ttgatataata ctaaatggcg ggaacatgtt 240
 ttttttgtt tttgtttgtt ttgttttgc agacggagtc tcgctctgtc 300
 cccaagctct cgag 314

<210> 76
 <211> 268
 <212> DNA
 <213> Homo sapiens

<400> 76
 gaattcgcgg ccgcgtcgac aagtgcgac acgaaatcaa agcatgaaag cagaaaagaa 60
 aagaggaaaa actatccaga atggcaggga attgtttgag tcttcccttt gtggagacct 120
 tttaaatgaa gtacaggcaa gtgagcacac gaaatcaaag catgaaagca gaaaagaaaa 180
 gaggaaaaaa agcaacaagc atgactcatc aagatctgaa gagegcgaagt cacacaaaat 240
 ccccaaatga gaaccagagg acctcgag 268

<210> 77
 <211> 295
 <212> DNA

<213> Homo sapiens

<400> 77

gaattcgcgg ccgcgtcgac aattttaagt taagtcccat atgaaggctc aaaagagcgg 60
taaagaacaa cagcttgaca ttatgaacaa gcagtaccaa caacttgaaa gtcgtttgga 120
tgagatactt tctagaattg ctaaggaaac ggaagagatt aaggaccttg aagaacagct 180
tactgaaggc cagatagcag caaatgaagc cctgaagaag gatttagaag gtgttatcag 240
tgggttgcaa gaatacctgg ggaccattaa aggccaggca gtcaggccc tcgag 295

<210> 78

<211> 148

<212> DNA

<213> Homo sapiens

<400> 78

gaattcgcgg ccgcgtcgac acataccttg cattttccac tgttactttg ataccatttt 60
tagttgcgaa acacgtggca tgttctcgga aatgaatagc tttcaagata gtggagagat 120
tcctaactgt gtcaaggctg agctcgag 148

<210> 79

<211> 224

<212> DNA

<213> Homo sapiens

<400> 79

gaattcgcgg ccgcgtcgac ataaatttgc tgcggctgga ctcaaggaa acatcgaatgt 60
ctttctctct gaccttggga gccacgga gccctttggg gcaagtcagc ctgtcagtct 120
gtgggtgctg tagcggggga ggcacacact catcccgctt caggggaaac gtctccccct 180
ccagactgtt gtcacatcat ttctctctct cctctactct cgag 224

<210> 80

<211> 288

<212> DNA

<213> Homo sapiens

<400> 80

gaattcgcgg ccgcgtcgac gtttcaaata aatgcttaaa gtttaatat acttgaaggc 60
aagagaagac aaagaacccc caaaatatta gaaaagatta taaaagacat tataagggtg 120
gaattcttac tctttgaatt ccatacttct tttattattt actaatgttc taatattaag 180
ttcatgataa gtcacacaca tatgttttct ccacactctt tccacctatc agtttttcta 240
acataattatt gttttaaaac tcttaattct attacagcaa tcttogag 288

<210> 81

<211> 251

<212> DNA

<213> Homo sapiens

<400> 81

gaattcgcgg ccgcgtcgac tttgaaggct gtttgttgtt gttgattctt agaggcagat 60
atctgactac gtttgttita tacttttagct atatgaatgt ttacctattg aaaatactgt 120
tttattaaaa attactttgt tctttatacc ttaggagata aatgtacatt ttaaaagtgt 180
tcctcagtc ggtgaggtgg cttatgcctg taagtccaac acttggggag gccgaaccag 240
gaggactcga g 251

<210> 82

<211> 498

<212> DNA

<213> Homo sapiens

<400> 82

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gaattcgcgg ccgcgtcgac gtccatggct gaggagaaga ggaagcgaga ggaagaggag 60
aaggcacagc aggtggccag gaggaacag gagcgaaagg ctgtgacaaa gaggagccct 120
gaggctccac agccagtgat agctatggaa gagccagcag taccggcccc actgccaag 180
aaaatctcct cagaggcctg gctccagtt gggactcctc catcatcaga gtctgagcct 240
gtgagaacca geagggaaca cccagtggcc ttgtgccc ttaggcagac tctcccgag 300
gacaatgagg agcccccagc tctgccccct aggactctgg aaggcctcca ggtggaggaa 360
gagccagtgt acgaagcaga gcctgagcct gagcccgagc ctgagccga gcctgagaat 420
gactatgagg acgttgagga gatggacagg catgagcagg aggatgaacc agagggggac 480
tatgaggagg tgctcgag 498

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<210> 83

<211> 277

<212> DNA

<213> Homo sapiens

<400> 83

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gaattcgcgg ccgcgtcgac cttcagtcca tottacatat ggccaagttt gtttctctaaa 60
agttcagatg ttgtcatatt gctataatgc tcaagactct tccactcccc actgcctaag 120
gaattcagta cagactttctc agggcgcttt gaacacaaat ccaaccactc tacgcagccc 180
tatctccac tgctccctcc acaagcttca ttctttatta agatggggac tatctggtat 240
gcagatagcc agccacatct tcccctctgc cctcgag 277

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<210> 84

<211> 526

<212> DNA

<213> Homo sapiens

<400> 84

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gaattcgcgg ccgcgtcgac ggatgggtgaa cgggcaggag catctagtga ttgatggctt 60
ctgggtgttt ttaacgagag tttgaacaaa gactcagaaa tggtttttaa aataacagtc 120
ccatgtggcc cacatagaaa atattgggat attttaaggt gtggattcac ttttccatat 180
ttaaacactt gtttctactt ggtgaaatc acaggtgaca agtcaactc aggaataatg 240
gttttttttaa gaagatggga gttgggaatt tcttatattt tctctcact tcttaaaacc 300
acctttgtgc ccttgcttta cattaggaat aatggaaagg tgattaaaca cggccggttag 360
gagcctaaaa totaggtcag agtcccgat gaaagaaatc agataagttg agagagggcg 420
tgtgcagggt ggaaatgggt gcgtccatct ctgctggggc gtcgatgcca cctggctgga 480
cagggtggagc ctgggaaggta gggaggctcg gaacatgaag ctcgag 526

```

<210> 85

<211> 307

<212> DNA

<213> Homo sapiens

<400> 85

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gaattcgcgg ccgcgtcgac gtaaccccg ctccccctc cccccaccg ctggaaacca 60
cgactccgcc gccacctct gcatttgact gctccaagta cctcaggaaa tgacctcatg 120
cggctccgc acgttcgcgt ccatcttgtt tatttccagc gtttggccc tgggagcgat 180
gagcgacact gttcagcccc tgcttccagt tctttcaggg agttctcag tggcttccag 240
aggttccac acgctgcttc ccacagcagc tgcaccattg tacattccaa cagcaacaga 300
gctcgag 307

```

<210> 86

<211> 194

<212> DNA

<213> Homo sapiens

<400> 86

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gaattcgcgg ccgcgtcgac cgagggtattg gtgtaggaa agaaaaagag attgatgggg 60
taaatttgat tcacacatat atcatcaact cattttcaag agatttgctg tcatcaattg 120
attttcaaca gagacagag agctagtcca tgaggaaagg aaagcatata acaaatttgc 180

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tgggactact cgag

194

<210> 87

<211> 223

<212> DNA

<213> Homo sapiens

<400> 87

gaattcgagg ccgcgtcgac atttgggttct ttcctactca gaactactca gaaacaaact 60
 tatatttcag gttatttgag cacagtgaac gcagagtact atgggtgtcc aacacaggcc 120
 tctcagatac aaggggaaca caattacata ttgggtctaga tttgcccag ttcaaaatag 180
 tatttggtat caacttactt tgttacttgc atcaatcttc gag 223

<210> 88

<211> 265

<212> DNA

<213> Homo sapiens

<400> 88

gaattcgagg ccgcgtcgac gacaacatca aaagcaactg atgactctgg aaaacaagct 60
 aaaggctgag atggatgaac atcgctcag attagacaaa gatcttgaaa ctcagcgtaa 120
 caattttgct gcagaaatgg agaaacttat caagaaacac caggctgcca tggagaaaga 180
 ggctaaagt atgtccaatg aagagaaaaa atttcagcaa catattcagg cccaacagaa 240
 gaaagaactg aatagttttc tcgag 265

<210> 89

<211> 176

<212> DNA

<213> Homo sapiens

<400> 89

gaattcgagg ccgcgtcgac aaattggaaa ctgtagaagt gttaatgtgt cctatggact 60
 caatagcaga gtttattttt gtttttaatg gcaaggcttc tagagtcaat gattgtatga 120
 gtttgctact ctggctgtgc ttacagcttc atccaagtac aaaggaagaa ctcgag 176

<210> 90

<211> 196

<212> DNA

<213> Homo sapiens

<400> 90

gaattcgagg ccgcgtcgac ggtgtgttat tgtttttatt ggctgtacct ggtagaattg 60
 aaaaatcagc atttctattg tagcctacta atttcagtga aatatttctt tagaaatata 120
 aaatctggaa ctttccatca ttatgcctcc ccaaaataat agaggacttt acacacagat 180
 aacacctgcc ctcgag 196

<210> 91

<211> 348

<212> DNA

<213> Homo sapiens

<400> 91

gaattcgagg ccgcgtcgac ggggggtggga aggagtgggt ggagctggcc tccctcagaa 60
 tcaagctggg ctcaactgtg atttaggagg tatgaagtgg ggaatcagtc tttgtctacc 120
 ttctgttccc tgcaccaga cctcctccac tttcttaggg taagaaatgc ctttgatagg 180
 ggtaaagcct ttctttccag agtttgagat cagagacttc aatatgcaaa gtcttggggg 240
 atgctgacag atcagcacac gtgcttttta tatttaata attctcaca cctatgtggc 300
 ttgtcaggaa tgaagaatct aaagcttatt gtgctagggg cgctcgag 348

<210> 92

<211> 350
 <212> DNA
 <213> Homo sapiens

<400> 92
 gaattcgcg cgcgctcgac gtctaatctt cttagtgttt gataattttt tattacgggc 60
 tggagatttt atttaaaatt acttgtcaga ataattttga ggcttataat aaacatactt 120
 tacttttaag agcaaagttt gcttctttac ccaggagcat tgtcagtcag ggaacaactt 180
 aaaccaagtt ccttgagAAC acattctaaa ttttttagaa cagcatctta ataaacaaaa 240
 acaacactca cgtttcagat tttatatttt tgtttcccaa aggatttata tcaactgtatt 300
 tccaagtcac tgcacgttta atgtctttca aatcaacatc tctgctcgag 350

<210> 93
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 93
 gaattcgcg cgcgctcgac tttacatatt gtctattgct gctttttacac aagaacagca 60
 gagttgtgta gttgctgacag agaccatatt gaccaccagg cctaaaatat ttactgtctg 120
 actctttaca gaaaaagttt atctggcctc tagtctaacc tatcaatttt aaaaaaacag 180
 ctttttggag aaagaattca catactgtgc aattcaccga tttatatata attcaatggg 240
 ttttagtata ttcacagaga tgtgcaacca ccacccagc ctcgag 286

<210> 94
 <211> 140
 <212> DNA
 <213> Homo sapiens

<400> 94
 gaattcgcg cgcgctcgac gcatgagcca ccattgctgg cccctttctt tcactctctc 60
 taattttttc gacattctcc taccattttt ctcttttctt gggccttcaa tttgtgcccc 120
 cctccacccc caccctcgag 140

<210> 95
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 95
 gaattcgcg cgcgctcgac cgagtatttt actttattct ttttaagAAC tgagtcattt 60
 gtctctgtgt gtttcccttt atctggattt tgtaatcata tcctggaatg tggtttcaga 120
 ggtgtctctg tcttttgtat ttcattgtcag tttatactcc agtcgataag ctcgag 176

<210> 96
 <211> 601
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (191)

<400> 96
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 tggaggagga accggctgta atcatgaatt agaaatgata agacaaaagc ttcaatgtgt 120
 agcttcacaaa ctacaggttc taccacagaa agcctctgag agactacagt ttgaaacagc 180
 agatgatgaa natttcattt ggggttcagga aaatattgat gaaattattt tacaactaca 240
 gaaatttaact ggccagcaag gtgaagagcc cagcttggtg tccccaagta cttcttbtgg 300
 ctcatgtact gaaagactac tgagacaaaa tgcctgagctg acagggcata tcagtcact 360

gactgaagag aagaatgact taaggaacat ggttatgaag ctggaagagc agatcagggtg 420
 gtatcgacag acaggagctg gtagagataa ttcttccagg ttttcattga atggtggtgc 480
 aacattgaa gccatcattg cctctgaaa agaagtatgg aacagagaaa aattgactct 540
 ccagaaatct ttgaaaaggg cagaggctga agtatacaaa ctgaaagctg aaccgctcga 600
 g 601

<210> 97

<211> 347

<212> DNA

<213> Homo sapiens

<400> 97

gaattcgcg cgcgctcgac gaagggaacg ttcagctgga aactggagat aaaataaact 60
 ttgtaattga taacaataaa catactgggt ctgtaagtgc tcgcaacatt atgctgttga 120
 aaaagaaaca agcccgtgt cagggagtag tttgtgccat gaaggaggca tttggcttta 180
 ttgaaagagg tgatgttga aaagagatat tctttcacta tagtgaattt aaggggtgact 240
 tagaaacctt acagcctggc gatgatgtgg aattcacaat caaggacaga aatggtaaag 300
 aagttgcaac agatgtcaga ctattgcctc aaggaacagg gctcgag 347

<210> 98

<211> 351

<212> DNA

<213> Homo sapiens

<400> 98

gaattcgcg cgcgctcgac cttacctgtc ctaggggagt aggcaagcac ttccactagg 60
 gaggggtgg gggaaaggaa tgacacatga catacatggc atacacatta agcagttgat 120
 catatgtctg actgggttcc agtttcttgg gaatgttggc ccccttggtc aggcttgcat 180
 attttaaact aaaaatttca gtctattgtt tttagtact tcatttatag tctccataa 240
 caagttagaa ggaatgtatc gctaccattt attcctataa ttttagaaag ttggggcttg 300
 acattatact catttagtga gtagtagtgc aaaaaagtgc aggggctcga g 351

<210> 99

<211> 446

<212> DNA

<213> Homo sapiens

<400> 99

gaattcgcg cgcgctcgac gaagaaggaa ggcgcgagtg aggaaaggag gtactgtaga 60
 tgccctccaa atcccttgggt atggaatatt tggtcatcc cagtacactc ggcttggctg 120
 ttggagtgc ttgtggcatg tgctgggtt ggagccttc agtatgctt gggatgctcc 180
 ccaaaagcaa gacgagcaag acacacacag atactgaag tgaagcaagc atcttgggag 240
 acagcgggga gtacaagatg attcttgttg ttcgaaatga cttaaagatg ggaaggga 300
 aagtggctgc ccagtgtct catgctgtct tttcagcta caagcagatt caaagaagaa 360
 atcctgaaat gtcacaaca tgggaatact gtggccagcc caagtggtg gtcaaagctc 420
 ctgatgaaga aaccctgacg ctcgag 446

<210> 100

<211> 266

<212> DNA

<213> Homo sapiens

<400> 100

gaattcgcg cgcgctcgac ccgtccctct acgcgttttg gtccctgttt ggtgctttct 60
 gtttgcagct acggcagtg gtatatcttg gcataggaac caatcagaaa caatcgcttc 120
 agcaatcaag accattgttc atcatggagg aaccatgga tacctctgag cctctatctg 180
 cattaccatt cactgggcag cagtcttttg agccaagtgg caaatttga cagtatccat 240
 cgtatgcagat gaaccacata ctcgag 266

<210> 101

<211> 290
 <212> DNA
 <213> Homo sapiens

<400> 101
 gaattcgcgg ccgcgtcgac aaaaaagtta ctgtatttta gactaaatgg gaaagataag 60
 agatgatgct acagagtaat tcagaggcta aaacatgtag gggctctgta ggccatattt 120
 ctttaaaaaa cagattaaaa aaacttattt tgggaaaaaa ctttcggaga tggccaaaga 180
 acatgacaac tgccatcata cccttcattt gtattcatto attattaacg ttttcctaca 240
 tttgcttatt tctccgtata ggggtatttt tcaagactgc tgatctcgag 290

<210> 102
 <211> 234
 <212> DNA
 <213> Homo sapiens

<400> 102
 gaattcgcgg ccgcgtcgac gcagactgtg caagctccca gctgttcctt cttctgctgt 60
 ccctagccaa caaacacagt ggcatttaca acttttggca tatagaaatt atatgtaaaa 120
 attcaggtag tactatttct tttagtcctg ttagtctctt tctctctcta tataatatga 180
 tctctggaca tgcattctctg gttatatctt gaggcttttg ctgcaaccct cgag 234

<210> 103
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 103
 gaattcgcgg ccgcgtcgac ggggccctgg tcacgcttga aaatggtctc actaagtaag 60
 ttccggatga aattaaagaa aacactcctt aggtccttct tttctgcttg ttcttgggtca 120
 cctacaatgg gaggagactt aaggcaagat tcacggggag ctacaggagg ttcattggca 180
 ggaaagtggg tggtgccagc agcttcaacg aagctccgtg catcccttct tcccctcgag 240

<210> 104
 <211> 154
 <212> DNA
 <213> Homo sapiens

<400> 104
 gaattcgcgg ccgcgtcgac cgtegatgta attctagtcc tgtttctttg cctccccaac 60
 aaacaccgtg ttccaagaaa tgccaagcct gaagaagaat gaaggtaggt ctgaaatttt 120
 cagaggccca agcaagactc tggaaatctt cgag 154

<210> 105
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 105
 gaattcgcgg ccgcgtcgac ggtgttaggg gtttaaaggg agttgactga ataaggtaaa 60
 gatctgctgg tcttgaaaat gaaacatctt cattatttca aatgtgtaac aactactgct 120
 tgctatttgg cactatctgc ttctgtgctt catattaaat cctttaactt gcttcaatgt 180
 gcatgtgctg gattgagagc cacttttgtc cccctggggc cacaggaggg tcccggcgag 240
 gacccccgcc ctctggctcc cggggcgctc gag 273

<210> 106
 <211> 262
 <212> DNA
 <213> Homo sapiens

<400> 106

gaattcgcg cgcgctcgac gtggcctggg ctcctaatac aggtaaattg tctccaaagg 60
 actagtaaag gtgactgggt catcctcctg ccccgaggac actgattaga gaaaatccgt 120
 ctgtgctggc aatacggcag tgctggacac tcggaattcc cttgaaggca aaagcaagga 180
 acagagcgtg attaggtact ggacacctgc caagtgcctg gctctctcca gtttacagat 240
 gaggaaactg aggcctcctg ag 262

<210> 107

<211> 259

<212> DNA

<213> Homo sapiens

<400> 107

gaattcgcg cgcgctcgac tgatgggtata agtattttacc tgggacaagg ggcttcctta 60
 tttggctaaa ttatctaaaa tgcattaggaa gaatagaact ttagttggc tttttttctt 120
 ttatctatct atctatctat ctatctatct atctatctat ctatctatct gttctattgc 180
 ccagactgga gtgcagagg gcaatcatag ctactgcag cctagaactc ctgggctcat 240
 gcaattgtct cacctcgag 259

<210> 108

<211> 260

<212> DNA

<213> Homo sapiens

<400> 108

gaattcgcg cgcgctcgac ggtttttacca tcttggttaa caccgtgaaa cctgtctct 60
 actaaaaata caaaaaatta gctgggatta caggcgtgag ccaccgcgc cggccaaaat 120
 aaaattttta aaaggatatt tacatcagtg tagtatgtga agtaaacaaag aaaaagataa 180
 aactcacttt ttaagtaaaa acagtcattg gcttgaagta tgttgaatc tttatcagaa 240
 aagtattgga aggaactcgag 260

<210> 109

<211> 255

<212> DNA

<213> Homo sapiens

<400> 109

gaattcgcg cgcgctcgac ttggattaca ggtccctgct gccacgccc gctaattttt 60
 gtatttttag tagagatggg gtttctccat gttggctcag ctagtctcga actcctgacc 120
 tcagatgatc tgcagcctc ggctctccaa agtgatggga ttacaggcat gagccattgc 180
 gcctggccca ggacatttat ttttattgct aaatacattt cagtcattta tgtatttggt 240
 ttctccccc tcgag 255

<210> 110

<211> 423

<212> DNA

<213> Homo sapiens

<400> 110

gaattcgcg cgcgctcgac tccttcctag ccttggtcgt cgcgcgccacc atgaacaaga 60
 agaagaaacc gttcctaggg atgcccgcgc cctcgggcta cgtgcgggg ctgggcccgg 120
 gcgcccactg cttcaccacg cggtcagaca ttgggcccgc cgtgatgca aatgaccctg 180
 tggatgatcg ccatgcaccc ccaggcaaga gaaccgttg ggaccagatg aagaaaaatc 240
 aggtgctga cgtgacgac gaggatctaa atgacaccaa ttacgatgag ttaattggct 300
 atgctgggag cctctctca agtggaccct acgagaaaga tgatgaggaa gcagatgcta 360
 tctatgcagc cctggataaa aggatggatg aaagaagaaa agaaagacgg gagctatctc 420
 gag 423

<210> 111

<211> 203

<212> DNA

<213> Homo sapiens

<400> 111

gaattcgcgg ccgcgtcgac attacctcat aagcattaac aaatcaggcc caaagagcgt 60
aagtcctaga aatttgtttt aaagcagccc tagtcatggc gctgggtgcta ccgccttgtt 120
ttaggagcct gcctcctgtc agtatgaaac cctcacctga aaaatgccag cctggacacc 180
aaacactgag ccccttctc gag 203

<210> 112

<211> 257

<212> DNA

<213> Homo sapiens

<400> 112

gaattaagaa ttcgcggccg cgtcgacaaa aaaaaaaaaa aaaggatacc aaaattctca 60
agtcacaaata taaggggtttt aacattccca ttctacacc acgtgcaaga aaaacanaat 120
ccttggttttc tgcctgcctt tatggtcctt tctcattttc agcccccttt cctcattcta 180
ctctattaat tatgccttta tatggatgca aacttgtaaa atatgtggcc tatttttgtt 240
gtatacgtgg tctcgag 257

<210> 113

<211> 348

<212> DNA

<213> Homo sapiens

<400> 113

gaattcgcgg ccgcgtcgac gttggaggag gaggaagagg aagtcgaaga ctgtggcttc 60
ctttttttgt tacttgaga ctgcgtcgcta cgggtggaca ggtctttgac ttttgaggat 120
ttgctgggtt tgggttttga tggcttggtg gatggggaag ggatgacggc tggatcggg 180
gacacggcgg atggggcctt gaagggttgag tccatgatgc tgaggggtgc ggccacatga 240
gggaaagctg tgggttgagg catgagggcg ctccgggtccg gcgatgtcac gaaagctgcg 300
tttgagagca tggctgatgt catcatgtaa gaagaggtga gcctcgag 348

<210> 114

<211> 303

<212> DNA

<213> Homo sapiens

<400> 114

gaattcgcgg ccgcgtcgac gggattacag gcataagcca ccgtgcccg cctgtagatt 60
tcatttttag aaggtttgct tttacagtt taaatttgta actcacataa aaaaaactta 120
ttataagaaa gagaaactag gtgttaggat aagtaaaaca ataagcattt ttgtctcttc 180
tggttttgta gattttaatt gtttaactta ataaaatcac attaattggg gttcaactac 240
ttcacatttg taataacttt ggggtgttaa attgagatga aattcatcag gggaaaactc 300
gag 303

<210> 115

<211> 214

<212> DNA

<213> Homo sapiens

<400> 115

gaattcgcgg ccgcgtcgac aaaaaagaaa ggaagtggca tatttggtta attgataaat 60
taccactgtc aaattatatt ggtgagtccta tatctattgt tgccccaga tgttgccctt 120
gcaagaatta gtgtaaaatt ggaaaaaata ctcaatgttg aaagctgtca ttgttgagat 180
ctttatgaaa ttattgtgcc catgtccgct cgag 214

<210> 116

<211> 230

<212> DNA

<213> Homo sapiens

<400> 116

gaattcgcgg ccgcgtcgac tgcagatttt tctcttcacc tcatcaacag gtgatatagc 60
 ccttttgggt gcttggcttt aagtacagtt cttagattca gctcctctac tttgtcaagt 120
 ctaaatacta ttcctcagtg atgctgataa ccagcaaagt tttagtttct atgttgggca 180
 tatttttggg gcagccctgt aaggatgtgc tccatggtac aagactcgag 230

<210> 117

<211> 195

<212> DNA

<213> Homo sapiens

<400> 117

gaattcgcgg ccgcgtcgac attaatTTTT cctgagagca gtgacttga ttagatgcc 60
 tttttagtg tcatcaaatc ttagattatg agctcaaaga ttttatctct atatacaca 120
 tttctaata taaaaaaaaa agtcggggcg ggtgcggtgg cttaggcctg taatccagca 180
 ctttaggggc tcgag 195

<210> 118

<211> 460

<212> DNA

<213> Homo sapiens

<400> 118

gaattcgcgg ccgcgtcgag aagatcctt tcaagagctg accatagaag aacatttgat 60
 tgagagaaag aagaaattac aggagaagaa gatgcatatt gcagccttgg catctgccat 120
 attatcagat ccagaaaata atattaaaaa attgaaagaa ttacgttcta tgttgatgga 180
 acaagatcct gatgtgctg ttaactgttc aaagctggta attgtttctc tgatggagtt 240
 atttaagat attactcctt catataaaat ccggcccttc acagaagcag aaaaatctac 300
 taagaccga aaagaaacc agaagttaag agaatttgaa gaaggcctgg ttagccaata 360
 caagttttat ttggaaaatc tggaacaaat ggttaaagat tggaagcaga ggaagctgaa 420
 gaaaagtaat gtagtcttct taaaggcata cggactcgag 460

<210> 119

<211> 239

<212> DNA

<213> Homo sapiens

<400> 119

gaattcgcgg ccgcgtcgac cagacagatc aaatggaaag gctcccccat cctgtcctct 60
 acaccacett gcagctgggc ctcagcaact gggcttttaa tttcagtcta attcaagtca 120
 gcagcatagg gcagctcctg ggaattgggt ttacacatgc ggacaagccc agtagccag 180
 agctaacca ctcaccatcc ctgaccacag aggagcagat aaggaagcaa gaactcgag 239

<210> 120

<211> 191

<212> DNA

<213> Homo sapiens

<400> 120

gaattcgcgg ccgcgtcgac tgggcatcat ctccataatc ttttcataaa gcatcaatga 60
 tttcattatt cctctaccca aactttacaa gaagtatttt tttttttgag ccagtatctc 120
 gctccatcac ccatgtgga atgcagtggc atgatcatag ctcaactgcag cctcaacctc 180
 ccaggctcga g 191

<210> 121

<211> 227

<212> DNA

<213> Homo sapiens

<400> 121

gaattcgctg ccgcgtcgac tttcttttga tcactatgcg gtgtcactat gtggtagtag 60
 cgaggtcaga ctgtagcgag tgttttaaagt ttgtttcctt tgttttctgg gcttggtggg 120
 ctttttctgg tacctgccct agcctagtca gtcattcccc atgtgcccc cttaggctag 180
 agatgccta ccgccctcag gcctcgctga atgtgccaaa cctcgag 227

<210> 122

<211> 166

<212> DNA

<213> Homo sapiens

<400> 122

gaattcgcg ccgcgtcgac tgactcatag tcaagaccct ccaccagtaa catatatgg 60
 cgagccagcc aggagaccac tacaggaaac actccattta ttccacctga cttcccactt 120
 ggctgcatcc tcaaccattg aaatgaattt gaccctgata ctcgag 166

<210> 123

<211> 223

<212> DNA

<213> Homo sapiens

<400> 123

gaattcgcg ccgcgtcgac ctaaaacccc agaatcatta ttgttgcatc tttttatatt 60
 ccacttaatt attcatcaaa tagcagtaat gctttctttg aaatgtcttc tatatatctt 120
 tgttttctgt tctgttttcc atctcctcat ttctgttctt tccccctccc cttctctcga 180
 tttacttcta acagctttrt gtccctttca gtcgacctc gag 223

<210> 124

<211> 178

<212> DNA

<213> Homo sapiens

<400> 124

gaattcgcg ccgcgtcgac cagactggca acaaactttt gagtgagtgt taagatacaa 60
 gaaaccctaa aagtctctag gagaatgac tttaaactta gaattccttt ttttaatttg 120
 gtccacacag ggtctcactt tgttgccag gctgctgtac aatggcccag atctcgag 178

<210> 125

<211> 226

<212> DNA

<213> Homo sapiens

<400> 125

gaattcgcg ccgcgtcgac agaaaagcac aaattagttt taagtgaata gttgaaaagt 60
 aagtccgata aattaacatt caccatttgt ttttttttaa taaaggtaaa aatcactaaa 120
 ataaacagcc cactttaaca aaaaataggt gcaataaaac tataaaagag aaagcaaggg 180
 agtgatgaac agaggttgta ggtgatgat acggaggata ctcgag 226

<210> 126

<211> 220

<212> DNA

<213> Homo sapiens

<400> 126

gaattcgcg ccgcgtcgac gtttcaaagc cgtagacacc ttttattcag ggctggtaag 60
 cttcactggg gtttttgggc tcctgctttt tttttttttt ttaaatctga ttacaatggg 120
 gttgcacact gttgtgggtt atcgtttttt agtgatcctg ttgctcaata accctccagt 180
 gctctgctct gaaacagcac cagaaccca cccactcgag 220

<210> 127

<211> 216

<212> DNA

<213> Homo sapiens

<400> 127

gaattcgcgg ccgcgtcgac tcgtccagta ccagtgcac gcagtttaaa tagtgatatt 60
tcctatcttg gtgttggggg caagcaagct gtcttctttg ttggacaatc agccagaatg 120
ataagcaaac ctgcagattc ccaagatgct cactgagctt tgctttctaa agaagatttt 180
gagaagaagg agaaaaataa agagcgagct ctgcag 216

<210> 128

<211> 180

<212> DNA

<213> Homo sapiens

<400> 128

gaattcgcgg ccgcgtcgac gcaaaactagt aagtatgagg ttttcagctt caaatacaaa 60
accgtaatga tactagctga cattattgag tgcattcaga atactttagt ggacttttta 120
taagaattat taatatatcc caaaggatca ggaatgttac ttttcattgt ctcctcagag 180

<210> 129

<211> 204

<212> DNA

<213> Homo sapiens

<400> 129

gaattcgcgg ccgcgtcgac ttctctctct ctctctcttg ccatttttagc gtgcatgatt 60
tcattttttt tgttggcacc tgtaaggctg tatcttttcc ttgccagcc ttgggttatg 120
gttacatctt cccattgctc attgccacc ctccagtgtg cactctctgt gcgctccttg 180
ctgggtgaag ccgggcctct cgag 204

<210> 130

<211> 237

<212> DNA

<213> Homo sapiens

<400> 130

gaattcgcgg ccgcgtcgac ctgagggatg ctcatcttta acagtctccc tcatgtactt 60
ttgctgtttt acacagagaa acaggtagac cccacagagg agaaggaggg gattcaacag 120
ctttattgtc tggaaagcag gagatttggc gattgtctgg ggggattcct gggtttccct 180
gggtaccttg ttccaggcag tcagtcacat tgccttctta gtacaagccc cctcgag 237

<210> 131

<211> 250

<212> DNA

<213> Homo sapiens

<400> 131

gaattcgcgg ccgcgtcgac cttgtagata ccttttgaat ttaatgtcgt tagaattgct 60
tcttttttta atgctctatc taggtgaaag atatgatcct gagcccaaat caaatggga 120
tgaggagtgg gataaaaaca agagtgcctt tccattcagt gataaattag gtgagctgag 180
tgataaaatt ggaagcacia ttgatgacac catcagcaag ttccggagga aagatagaga 240
gactctcgag 250

<210> 132

<211> 258

<212> DNA

<213> Homo sapiens

<400> 132

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gaattcgagg cgcgctcgac atttatttaa ataatatagt tccatatttt ttagtatatt 60
tacagagttg tgtaaccatt accacaatct aattttggaa cactgtcttg gtcctgaaa 120
gatcctgcaa accattagca gtcactcttc atttctcttt tccccagccc ctggcatcca 180
ctaactctact ttatgtctct atggatttgc ctactctggt tgtttcagat aacatttgga 240
ctttgtgaca gactcgag                                     258

```

```

<210> 133
<211> 139
<212> DNA
<213> Homo sapiens

```

```

<400> 133
gaattcgagg cgcgctcgac ctttcccaaa attcagaagt taatgggctt ttatgttttt 60
ctatattttt ttattttcaa tgatttggcc tgtctatgtt aggctaaaaa ataaccttgt 120
gtatgctacc aacctcgag                                     139

```

```

<210> 134
<211> 201
<212> DNA
<213> Homo sapiens

```

```

<400> 134
gaattcgagg cgcgctcgac ggagaagtaa gaattgtaag ggaggttcag tagtggggaa 60
ttctgtgaca gctgattgaa gatgatgatg aagaacctct gcattctagt taccctttgc 120
ttcccttcac ctcttgtaaa atttggcttg gcaacaatga cattgtcatg cttattgtcc 180
caatatccat ccaatctcga g                                     201

```

```

<210> 135
<211> 132
<212> DNA
<213> Homo sapiens

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<220>
<221> unsure
<222> (84)

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<400> 135
gaattcgagg cgcgctcgac ctcgagggtg tctaagagga aaccaaaaaa gagctggaag 60
agaacaagcg atcctctggct gcantggatg cactcaatac tgatgatgaa aatgatgagg 120
agggctctcg ag                                     132

```

```

<210> 136
<211> 190
<212> DNA
<213> Homo sapiens

```

```

<400> 136
gaattcgagg cgcgctcgac agaagacata ctaatagaac tccttgcttt taattgggga 60
aatagggtct taataatttt gacctcaact aaaaatgata tgcaatagtc tctgtgtgtg 120
tttgaaatac attgtgttct cagagatttc tacattctca cgttctagtg atttggggca 180
tagactcgag                                     190

```

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<210> 137
<211> 220
<212> DNA
<213> Homo sapiens

```

```

<400> 137
gaattcgagg cgcgctcgac atcacaatga gaccgttggc tttgaatttg agtcgttggg 60
tcccatgggt agatgcttgt taagacttta tacttgggtc aatctctcac tttattttgt 120

```

agaaccattt gaaatcctag gatgtgcttg ttctggaagg atgacatggg cccagactga 180
acaagtgcagc ttgatgatct taaatgatgg gcaactcgag 220

<210> 138

<211> 156

<212> DNA

<213> Homo sapiens

<400> 138

gaattcgagg ccgcgtcgac tgcatttttt ggtatattaa tcttgatcc tctaaccctg 60
ataatgcatt tattagttca tagtggtttt tgcttctttt gttcttttct ggtaaatgcc 120
ttaggatttt ctttttctcc cgactccccg ctcgag 156

<210> 139

<211> 239

<212> DNA

<213> Homo sapiens

<400> 139

gaattcgagg ccgcgtcgac ctgaaataaa ggaaatggt agggacaaaa aaaagggcaa 60
catttttatt ggctctgttg atgagcgctt ctgtttgctc ggacaaggcc gaaggaagca 120
gcagctctac tggctgcagg ctgacatcc gggtttctag ctctgaacga gaagcagagt 180
cctggaaact atcaaacaca acctcgcttg tggcaggctg cactcccaca atgctcgag 239

<210> 140

<211> 169

<212> DNA

<213> Homo sapiens

<400> 140

gaattcgagg ccgcgtcgac cccgcctcaa cctcacgagt aagctgagac tgcaggctcc 60
accacacca gcgaatttat ttatttttgt agagatgagg ttccacctt ttgccaggc 120
tgggtctcaa ctctggcct caagtgatct gaccaccagc ggcctcgag 169

<210> 141

<211> 222

<212> DNA

<213> Homo sapiens

<400> 141

gaattcgagg ccgcgtcgac aaaacgcctt atgatgaatc taagtcttat attggctgtg 60
atctttgtac taactgggtat catggagaat gtgttggcat cacagaaaag gaggctaaga 120
aaatggatgt gtacatctgt aatgattgta aacgggcaca agagggcagc agtgaggaat 180
tgtactgtat ctgcagaaca cttatgatg agtcacctcg ag 222

<210> 142

<211> 198

<212> DNA

<213> Homo sapiens

<400> 142

gaattcgagg ccgcgtcgac tgccaaattt tttaaatctc gaaattggc ctaaaagaga 60
cttcatatat catctgggtc aatgagagac ctttttactt tatttattat tttattttat 120
ctatttattt atttatttat ttttgagatt gtgccattcc actccagcct gggtgataaa 180
gctggactcc gactcgag 198

<210> 143

<211> 238

<212> DNA

<213> Homo sapiens

<400> 143

gaattcgcg cgcgctcgac tattcttgc ttgctggagg cagatctgaa ggatgtcacc 60
 tctcctgtgg cttcttctag tgtgggggcc cgaagcctgg cttccccagc cgatgtgctg 120
 ctttagtcag cgtctgccct ggtccttcgg ttcgcaggct cacacgctt tttgggttgt 180
 gtccctttgg actgcagagg ctacgtgtcc tgtgaccaac cacggaggcg gcctcgag 238

<210> 144

<211> 151

<212> DNA

<213> Homo sapiens

<400> 144

gaattcgcg cgcgctcgac cttaaagtcca gtgtttccag agacttttga aagtcaactt 60
 acactttttc cttcttctat cacaagctc tcttccctg ggccctggta tgtatgcctt 120
 tctctcttac tgtctaatag cgagcctcga g 151

<210> 145

<211> 186

<212> DNA

<213> Homo sapiens

<400> 145

gaattcgcg cgcgctcgac caggatgttc tttctatccc attcatctac cttgggtgtt 60
 ctttgtcttg cctccttgct ctgggtgtgc gagcaatatg gggcaccttc atttctgcag 120
 tcagagggtt ggccactggg aatgagaaga accacctctg taccctggga tgetgtgtca 180
 ctcgag 186

<210> 146

<211> 460

<212> DNA

<213> Homo sapiens

<400> 146

gaattcgcg cgcgctcgac gggctcctgaa gccctctgtc tacctgggag accagggacc 60
 acagggcctta gggatacagg gggcccccct ctgttaccac cccccaccct cctccaggac 120
 accactaggt ggtgctggat gcttgttctc tggccagcca aggttcacgg cgattctccc 180
 catgggatct tgagggacca agctgctggg attgggaagg agtttcaccc tgaccattgc 240
 cctagcccagg ttcccaggag gccctaccat actcccttcc agggccaggg ctccagcaag 300
 cccagggcaa ggatcctgtg ctgctgtctg gttgagagcc tgccaccgtg tgtcgggagt 360
 gtggggcagg ctgagtgcac aggtgacagg gccgtgagca tgggcctggg tgtgtgtgag 420
 ctccagcccta ggtgcgcagt gtggagacag gattctcgag 460

<210> 147

<211> 244

<212> DNA

<213> Homo sapiens

<400> 147

gaattcgcg cgcgctcgac caecttccat ccattttccc agtccagaaa tttaggagtt 60
 atctctgatt cttcttttat tcttaatccc attttccata cataatcaag cccctgggtc 120
 agtcagttct tgcgtgccaa gattttccta tctgtctgt ttgccatatg tgaatcatat 180
 gctactgtgt taccttttga ttagtcttag ttttccattt aaatatattc agtgtgagct 240
 cgag 244

<210> 148

<211> 165

<212> DNA

<213> Homo sapiens

<400> 148

gaattcgcg cgcgctcgac atttcacgaa cttaggatgt gttttttatt catgaaaaac 60
 ttagaatagt gaactartaa tatttaaaaa cgagaaatag aacatttaaa aaattaagag 120
 tattttgcat tagtgattat gattcttacc ccaaaattcc tcgag 165

<210> 149

<211> 252

<212> DNA

<213> Homo sapiens

<400> 149

gaattcgcg cgcgctcgac gaagcctcat tggagcagat tgcttttaaaa tctttttcct 60
 tctaatttca ggattggcat ctctgtctt tttctgtctt cttggcattt tagcatatct 120
 ccagtaggtt gtcctcgat tctgaatacc aatttaacgc aaattatggt cattagtgtc 180
 ctggctgctg ctgttttact tttatatttt tctgtgtgca taatccgaaa taagtatggg 240
 cgagatctcg ag 252

<210> 150

<211> 136

<212> DNA

<213> Homo sapiens

<400> 150

gaattcgcg cgcgctcgac agacattgtt ctttagccat tgtatcttta atagtctttt 60
 aaacacattc atctctgggc taaaaatgct ttttaaaaaa accaaaaaga gtacttttct 120
 agaagcattg ctcgag 136

<210> 151

<211> 188

<212> DNA

<213> Homo sapiens

<400> 151

gaattcgcg cgcgctcgac cccaacctga agctgaagaa gccgcccctgg ttgcacatgc 60
 cgtcggccat gactgtgtat gctctgggtg tgggtgtctta cttctctatc accggaggaa 120
 taatttatga tgttattgtt gaacctccaa gtgtcgyttc tatgactgat gaacatggac 180
 acctcgag 188

<210> 152

<211> 181

<212> DNA

<213> Homo sapiens

<400> 152

gaattcgcg cgcgctcgac atttttactg caagttaatg ctggaaaaac agggcaattt 60
 ttcacagaga gaacatccta ataatatcag ttttagtaca aatagcggca tcttagtgaa 120
 ccttgtattt ttcctttttg ttgcagtgtt tgctagaaaa cataatcgga aggacctcga 180
 g 181

<210> 153

<211> 251

<212> DNA

<213> Homo sapiens

<400> 153

gaattcgcg cgcgctcgac caacctctg gcttagtaag ttgtggtttt tctgaccttt 60
 ttaaggtttg agaggacatt ttatttatat taaccaattt atttgaattt cagtctcaga 120
 agtattaaat attagttcat aagattgtta atctgtctgg tcaggcaaat acagaagagt 180
 ttttcacttt attcttgatt attttactta tgatcatttc caatttagtt ggggtaataa 240
 cctgcctcga g 251

<210> 154
 <211> 224
 <212> DNA
 <213> Homo sapiens

<400> 154
 gaattcgcg cgcgctcgac atttgttgag ttttgaccac tgcgcctggc tcataatttc 60
 tttatatatc aaaacaattc agcttgcttc acttttatga aagctttatt atgagtttga 120
 aagcaattct gcattttctt aacattgtaa ctggtgttga gttgaaggca ggccctggg 180
 agccctttgt gggcaattcc cttcactctg gaggtgcct cgag 224

<210> 155
 <211> 145
 <212> DNA
 <213> Homo sapiens

<400> 155
 gaattcgcg cgcgctcgac cttgtcttat tcttgatttt aggggtgctca ctcttagtct 60
 tttgccatta tattgtttta tgttggtttt ccataacctc actatgctga atagcagttt 120
 ggcactctgt ctggtcgctc tcgag 145

<210> 156
 <211> 163
 <212> DNA
 <213> Homo sapiens

<400> 156
 gaattcgcg cgcgctcgac cagctatttt attttaaaag ccaaaatatt tttaaactag 60
 ttttaaatat tgacgctttg aatagataac acttttacat ggttcaaaaa taatataaag 120
 agctatacat tgaaaaatgt tgcttccact cctgttccctc gag 163

<210> 157
 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 157
 gaattcgcg cgcgctcgac agagcttact gagttaattg ccaggagatg tatctaagtc 60
 agaggttgga gttgctcctc tgtgttttgc tgggttcgtg cagagctgct tttgtaccag 120
 gtttctacca cttgggggtgc tttttgcttt tctttteact tcccacatct caagcacctg 180
 ctgcgggtca gctcgag 197

<210> 158
 <211> 255
 <212> DNA
 <213> Homo sapiens

<400> 158
 gaattcgcg cgcgctcgac ttaaaaattt gtgaagcgtc gcatattttt tcagttattt 60
 tagtattaac aaacaaattg aagatcattg gtttatataa cccctgaga gactaatagt 120
 agaatagaac agaataatag aatagaatag aacagaatag aataatagaa tagaattata 180
 ggtatgagcc gtggtgacct gcctctaata gtttttttgc tgtgttgggt gttgtttttt 240
 atggttcccc tcgag 255

<210> 159
 <211> 150
 <212> DNA
 <213> Homo sapiens

<400> 159

gaattcgcg cgcgctcgac tggagtgga tggatttag caaaggtaca tagaacaaca 60
 gtgatcacat tgcctaagag tttctggtt ttttggttt ttgtttttt tgagatggag 120
 tcaggctctg tcgccaggc tggactcgag 150

<210> 160
 <211> 114
 <212> DNA
 <213> Homo sapiens

<400> 160
 gaattcgcg cgcgctcgac cttattccaa cttttcttt aaaacaccag caaacgtatt 60
 tgtgaattct tcttatctt gaaacttct atgtgttga taaacttact cgag 114

<210> 161
 <211> 166
 <212> DNA
 <213> Homo sapiens

<400> 161
 gaattcgcg cgcgctcgac ctatgaatca cgatactacg atgatcctcg ggaatacagg 60
 gattacagga atgatcctta tgaacaagat attagggaat atagttacag gcaaaggga 120
 cgagaaagag aacgtgaaag atttgagtct gaccagggac ctcgag 166

<210> 162
 <211> 182
 <212> DNA
 <213> Homo sapiens

<400> 162
 gaattcgcg cgcgctcgac attctttgtt accctttaca agtataagtg tttacaagta 60
 taagtgttac cttacatgga aacgaagaaa caaattcat aaatttaaat tcataaattt 120
 agctgaaaga tactgattca atttgtatac agtgaatata aatgagacga cagcttctcg 180
 ag 182

<210> 163
 <211> 217
 <212> DNA
 <213> Homo sapiens

<400> 163
 gaattcgcg cgcgctcgac cttttttctc tctctctttt aaataaacac aagcttcana 60
 taagcacaca ataagtctgg gcaagcctac tgggatttgg gattctctag ttagttttct 120
 ttgcctaact gagatatcta tttcatacta ctcttcattc cccaaatata teattccct 180
 ctctacctcc cctccagct gccccacaa cctcgag 217

<210> 164
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 164
 gaattcgcg cgcgctcgac gcacaaatagc agtttctaag caatgaatga gaggacacgt 60
 atgttggtga ctttgttgtt tctcttcac cctccaataa ataaaaccga gagttttgtg 120
 gacagggatt tattagagtt tcatcattta gttgacaggc tcgag 165

<210> 165
 <211> 227
 <212> DNA
 <213> Homo sapiens

<400> 165

gaattcggcg cgcgcgtcgac tcgtgttaat aactttttgc tttgttggat tgtttcttta 60
 ggatacattt ccagacatat acttagaaca tcaaaaacgt atggacatct ttttgatttc 120
 tcatgtgtta tactatgtcg catgtgttat gttatatgta tatatatata tgtataaacac 180
 atatatatat gtcattgtgt atattatgtg ggggggaaaa actcgag 227

<210> 166

<211> 211

<212> DNA

<213> Homo sapiens

<400> 166

gaattcggcc aaagaggcct agtttatgaa acttaccaga aaataaaagg accaatctaa 60
 aataaagaat ctctattgta tttttctact gacaatgcaa atgcttatct taaaacatct 120
 aatttttttc cccttttcac aggcaagcac aactgtaaca ctccagaat ctcaattcct 180
 tgccagttgt cattctgaag catccctega g 211

<210> 167

<211> 218

<212> DNA

<213> Homo sapiens

<400> 167

gaattcggcc aaagaggcct agaattaaaa ccataaatct atatcttagc taagatagga 60
 aaaatttact aaaatatttt tttctggttg aatttcagat ttctctata actctgcaca 120
 ccagaaaaaa atctatagta caaatacaga tgaaattcca tcaactgttt catttttttt 180
 taatttttct taatcttgtt cagggcatac atctcgag 218

<210> 168

<211> 238

<212> DNA

<213> Homo sapiens

<400> 168

gaattcggcc aaagaggcct aaagccaggt aaaaatttta aaaaagatga aatcctttct 60
 ggccttctgcc agaggctctg cattcttcat atctctgttc ctcatcagtc actgcaaagc 120
 tgatcagaca gattggcatg gtgttcagca ttttgagttc cagactctgg cgatgggaga 180
 taggtcattt ggaatttttc cctcatcccc tctcaaaac caaatcagaa atctcgag 238

<210> 169

<211> 265

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (31)

<400> 169

gaattcggcc aaagaggcct aggttgatta natatttttg ctattgtgaa tagtgctgca 60
 gtaaacgtga ggggtgcccat atctctttga taaactgatt tcttttcctt tggatagata 120
 cccagtagtg ggattgctgg atcatatggc agttctatct atagtttttc tttttttttt 180
 gagacggagt cttgctctgt caaccaggct ggagtgcagt ggcattgatct cagctcactg 240
 caacctccgc ctcccggggc tcgag 265

<210> 170

<211> 230

<212> DNA

<213> Homo sapiens

<400> 170
 gaattcggcc aaagaggcct aggatattcc agcaaagtct ctaactgcag cctgtagaca 60
 atttgctatt aaagattcag tgcacaaaat atagctaaca gcttttaaat ttttactttt 120
 aaccagtctg gggatttgct tgcctgggtga gtctcatatg ccatattatg aatatgaaaa 180
 taatgaagtt aatttctctg tgcctttctg tgtcagccac aaacctcgag 230

<210> 171
 <211> 293
 <212> DNA
 <213> Homo sapiens

<400> 171
 gaattcggcc aaagaggcct aggaatggct tgatgggtgc aggcctatgct gtgactgggg 60
 ctgtcctggg ccaagacagg ctgatcaact atgccaccaa tgggtccaag ttcttgaagc 120
 ggcacatggt tgatgtggcc agtggcgcc tgatgcggac ctgtacaccc ggccctgggg 180
 ggactgtgga gcacagcaac ccacctgct ggggttctt ggaggactac gccttcgtgg 240
 tgcggggcct gctggacctg tatgaggcct cacaggagag tgcgtggctc gag 293

<210> 172
 <211> 139
 <212> DNA
 <213> Homo sapiens

<400> 172
 gaattcggcc aaagaggcct agggattttt tactagtgat ttaattgttac tacttggttat 60
 tggctctgtt aggcctttctc tcttctgat tcaagctggg caggctgtat gtttcaggga 120
 atttaccatt tccctcgag 139

<210> 173
 <211> 149
 <212> DNA
 <213> Homo sapiens

<400> 173
 gaattcggcc aaagaggcct agtgagagtg acatcatgca ggaattactc gtattgaaca 60
 caatttttct agatattctt ccaatccccg acgtcgggca tctaattgtt gttctgataa 120
 tgaaaatggc cactcccccg ggactcgag 149

<210> 174
 <211> 209
 <212> DNA
 <213> Homo sapiens

<400> 174
 gaattcggcc aaagaggcct actcgaagtt cctcaaatac accaaagact ttcttggcct 60
 aaataatttt tatgtatcta tttctgcatt ctgagctttt ctttttctt ttatctaccc 120
 aaccaaatct ttcaaggctt agtgaataatg atttcccttc tgaggtcagt ccttgcccaa 180
 aaagatccct cacatcctct aaactcgag 209

<210> 175
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 175
 gaattcggcc aaagaggcct aatcatatta taactgatta gacaaaatgt ggcattattg 60
 tttttatttc ttttgcgttt tacaaggtct cactctgttg ccaggctgg agtgcagttg 120
 tatgatctcg gctcactgca gcctggacct cctaggctca agcaatcctc ccacctcggc 180
 cccccacata gctgggacta cagggtgcagg ctatcgactc gag 223

<210> 176

<211> 151

<212> DNA

<213> Homo sapiens

<400> 176

gaattcggcc aaagaggcct agtttcttga atgtaacatg acattttctca ttcccatacc 60
 ttcatattatg ttgtttatc ttggaatgct ctcccttcac ttgatgctt cacacgctaa 120
 tacacatcct tcaagacca attcactcga g 151

<210> 177

<211> 327

<212> DNA

<213> Homo sapiens

<400> 177

gaattcggcc aaagaggcct aaacataatt agttgtttat atacttctc tttaatccca 60
 gagttcgatt tacaaaaat ttgattgctg tttttgtata ttatctcagt gctctaaaat 120
 taccctagca aacgtgcagg aatgggtgca ggccccctaa ataaaaatgg aattagttat 180
 gttgggtttt ttttttttgc tgtttcactg ttacaattcc ccactgtcaa aggtctatc 240
 cacaattttg tgggattagg gacaattggga tgtcatctct cagctgggta cttcttgccg 300
 aacagggtca acgcggggca actcgag 327

<210> 178

<211> 500

<212> DNA

<213> Homo sapiens

<400> 178

gaattcggcc aaagaggcct agagggggcgc tgcgaggtat actgctctcc tctctgggat 60
 ctgtgagtaa tacactacct ctgctatttc atgcacccct gctatttcac gttgcctcct 120
 ctgtgtctca cctgcccagc acacctgaat ctacagtatt tcctgggtcag ggcattccta 180
 gagagtggct atcttggtag gaataaacca gaaacaggtc agacaagagc cccaagagtg 240
 tctgtcaata taatcaagtc cttatgagag aggacatctg gtcacagggtg gacacttagg 300
 cattaggcct tccaccagaa agaagtatcc caagaaaggc acactgcaga cagccacgac 360
 cacctccct gcatcagagc agggctagag tttatagcca ctttctagag agagctcaag 420
 aactaattag aaagaaaaaa aaatacaaca cacttgtcca tgttaaaact gggatttggg 480
 cccatgccat ctggctcgag 500

<210> 179

<211> 226

<212> DNA

<213> Homo sapiens

<400> 179

gaattcggcc aaagaggcct agttgagggg aggttggttt catggtttta cttttggttt 60
 tttgaggact atgtttgttt ttatttttac tttttatttt tttatttttg agacagaatt 120
 ttgtatttgt tgcccaggct ggagtgcagt ggcacgatct cagctcactg caatctccgc 180
 ctcccagggt caaactattc tctgcctca gcctcccaag ctcgag 226

<210> 180

<211> 272

<212> DNA

<213> Homo sapiens

<400> 180

gaattcggcc aaagaggcct aatgtggctc tttctctttt ttccctatc tttgatttga 60
 tgctcagaat atgttctctc tgggtccatg ctgacagcta agtttcccaa ggatattgca 120
 gctttcttta ggagtgttct tcttctcatt cctaccatga tgtgagaatt gactgagctg 180
 gtttctcctc atttgttcta cacattacta gtaaccatta cttataatta ttttagatga 240
 tgctagcatc atttttactg ataaaggctc ag 272

<210> 181

<211> 210

<212> DNA

<213> Homo sapiens

<400> 181

gaattcggcc aaagaggcct aagaatgtgc atacatgttt tcatgagtgt cctttgggtg 60
 ctgtttcttt taaatcctct gtgcacaggg ctctggcctt tagtaaactg tttttctgtc 120
 ttacgtcatg ctgactgggt gctaggggct gattacaaag gggaagagtt gaacagacat 180
 caggggccga tgaaactaaa tggactcgag 210

<210> 182

<211> 353

<212> DNA

<213> Homo sapiens

<400> 182

gaattcggcc aaagaggcct acgttctgca agtactagtt aatacaataa aactagagag 60
 agaaagaggt aattcaaagg caggaggtaa aatgatcact actgcacaa tgagtgtata 120
 cctgaagaaa cccaagggaa tccactgaaa aactactatc aacatgaaga gagtttcaga 180
 aaagatgaca gctgggtaca aaattaacac agagaaccca ataggtatca catataaacc 240
 aacaactagt gagaagatac aatggaagaa atggccttat tttcaaaagg aacaaaaagt 300
 taaaatatta taagtcaatt tcacaggaaa tgtctaaac tcccagactc gag 353

<210> 183

<211> 198

<212> DNA

<213> Homo sapiens

<400> 183

gaattcggcc aaagaggcct aaagacatca aggcattcaa tgcataccgt tttggttttt 60
 attttctctt gtcccttctt ttctggattt tcatctcatg taaagcatgt gggggtttta 120
 tttttatatt tttgtgtgtg tgtgcagtgt ctgccccaaag caagtctctt gggaggagga 180
 ggcggcagca cactcgag 198

<210> 184

<211> 216

<212> DNA

<213> Homo sapiens

<400> 184

gaattcggcc aaagaggcct attttaattc tatttttcat ttgagctgac ttgtagccac 60
 ttcagactat caatggaatc ttatgttgag cctttctctg gctttccttc cctccactatc 120
 tctccaactt tagagatcat cccctctccc tccagtgcgt tctatctccc ccacaccac 180
 cctagatact cccctttcac ccacctcttc ctcgag 216

<210> 185

<211> 208

<212> DNA

<213> Homo sapiens

<400> 185

gaattcggcc aaagaggcct aaaggctgaa tatgaggaaa aattcctggg acaaggtcat 60
 actaagcatt ttagttccac ctgccatatt gctgttagag tataaaacta aggctgaaat 120
 gtcccatatc ccacaatctc aagatgtcca tcagatgaca atggatgaca gcgaaaacaa 180
 ctttcagaac ataacagaag agctcgag 208

<210> 186

<211> 184

<212> DNA

<213> Homo sapiens

<400> 186

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gaattcggcc aaagaggcct aatttctcat caccgaagc tgcaaatctt ttcaaatgtt 60
atatttcata ttgtgggttac tgtctccaaa tatcttctct ttcttctctc ttcaattgcc 120
ttgcagctgg caagtctctg gagtccctgt cccctgccat tgcccactga acagacatct 180
cgag 184
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<210> 187

<211> 239

<212> DNA

<213> Homo sapiens

<400> 187

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gaattcggcc aaagaggcct aggtagactt cctgtgatct tcagaaatca tctacctggt 60
aaaaatacat gctgttttaga atatctgata ggtgtttcca gctactatta gaggtgtag 120
tgcttttctg ggggaaaaaa ttgggtcatgg tgaatggaga tcgaggaagc tcgggacaag 180
ggaggggtgg gctgcctgat tttgtccagt tttccaaata tccacgcaat gaactcgag 239
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<210> 188

<211> 216

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (151)

<400> 188

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gaattcggcc aaagaggcct agtgtgtgtg tgtgtgtgtg tgtctaattc aaattatata 60
caaggagttt gtgcaggcct tcttttagagg cagaagccag ttaggcaggt caagaataat 120
ataaaatcac aaatgaagag aataatgtgt ntatttttca tttgtcattt aggactgtct 180
gggggagact gtctctctct gggcggaaga ctcgag 216
```

<210> 189

<211> 303

<212> DNA

<213> Homo sapiens

<400> 189

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gaattcggcc aaagaggcct acaatcttta gcttccatag tgtcacacac tattaaattt 60
ttctcttctc cattagctgc acctactcat tctctttgtt ggttctctct catcttcttg 120
acaacttttg cagctgcctc catggcattt ccacttgggt atctattaat aatattttatc 180
ctaattgtgt cagaagcaaa tttctgttcc attctacctc ccaattctgc tccaccttca 240
gtcttacctc gttcgattaa agacaactct attcttccac ttgccagac caaaaacctc 300
gag 303
```

<210> 190

<211> 209

<212> DNA

<213> Homo sapiens

<400> 190

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gaattcggcc aaagaggcct atgagaatcc acgcgagacg gagccctcct cgccggccgg 60
cctggacgct tgggatctgg ttctgttctt ggggatgtat cgtcagctct gtatggagtt 120
cttctaattg agcttctctc tcttccacct ctctctcgcc ggggtctcac tctcagcacg 180
agcaccattt ccatggcaac acactcgag 209
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<210> 191

<211> 195

<212> DNA

<213> Homo sapiens

<400> 191

gaattcggcc aaagaggcct agtgagttgt tataaaacaa tgctgcctct tctattttgc 60
 gctttttgtt tgcacaaact cggctccctt ctgtttctct acgatgtttt gatgcagcat 120
 gaggcagtca tgagaaccca ccagatacag ctgcctgata ctgaatttcc cagccaacag 180
 aaccaaatgc tcgag 195

<210> 192

<211> 215

<212> DNA

<213> Homo sapiens

<400> 192

gaattcggcc aaagaggcct agaaagcct gaccctagat tggctgaatc tgaatctgca 60
 ttttaacaag atctctagga ataaatatgc acaataaagt tttaggtgca tggctctgtg 120
 ccattgctgac tgtttctgac acaaatgaaa gaaaatcagc tattgaagga agcaggtctc 180
 tagatctgac agtccatgtg tcttcttccc tcgag 215

<210> 193

<211> 275

<212> DNA

<213> Homo sapiens

<400> 193

gaattcggcc aaagaggcct agtctcgaac tcttgagttc aagagatccc cccacctca 60
 gcctcccaag tagctgggac tacatgccct tgctctgct ttgttttcca ttattttctc 120
 acatgtcagg ctccattata tgtttcacag tctttattat tattacctt cctcagctag 180
 aatgtgagtc cacaaggata ggtctgaact cttttactca cagcatttct gacccccaaa 240
 tatgtgtctt ttgtcctcat accaaccaac tcgag 275

<210> 194

<211> 282

<212> DNA

<213> Homo sapiens

<400> 194

gaattcggcc aaagaggcct acgtcgattg aattctagac ctgcctccag gaccctcccc 60
 ctttttaaaa aataaatcgc tgacaagtgt gaatcccggt aagactttat ttgtgtttgt 120
 gtgtatcctg tacagcaagg ttggtccttc gtaacaacgg atgaaatggt tccctttttt 180
 aaagcgccct ctctccctcc accctcagcg cccctgtcct tggcatgttt tgtatcagcg 240
 atcattctga actgtacata tttatgtagc gagaggctcg ag 282

<210> 195

<211> 132

<212> DNA

<213> Homo sapiens

<400> 195

gaattcggcc aaagaggcct agcttgccca ttttgcttgc caatgttcca tctttcgggt 60
 tctgatttaa tgcttgctca tatgtacta tggcttcttc aggcctctaga atattcatgt 120
 atgcatctcg ag 132

<210> 196

<211> 224

<212> DNA

<213> Homo sapiens

<400> 196

gaattcggcc aaagaggcct agccgtgaga cgtttcggga gccggagtct ctccaccgca 60
 gacatgacga agggccttgt tttaggaatc tattccaaag aaaaagaaga tgatgtgcca 120
 cagttcacaa gtgcaggaga gaattttgat aaattgttag ctggaaagct gagagagact 180
 ttgaacatat ctggaccacc tctgaaggca gggtaggact cgag 224

<210> 197
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 197
 gaattcggcc aagaggccta agtgaaacta agtaactact gtcagtcaca ttactcctt 60
 agcacttttg agtaaaactgt ggtttgattt ttttttgaca gggtaacaa acttggacat 120
 acacacacat acataaacac tcatgcaaat caacttaaaa atactcgag 169

<210> 198
 <211> 209
 <212> DNA
 <213> Homo sapiens

<400> 198
 gaattcggcc aaagaggcct actcaaaaga aggaggaaaa acaaggctct gaaagtgcct 60
 atatttcatt agggagggtg agaaaaaagg gacaaaaaag tgactgagaa gtaataatta 120
 acaatcagaa agacactaga gttcatcctg ggagccacgg agggacaagt ttcaaaactg 180
 agaagatgaa gactgcagca gttctcgag 209

<210> 199
 <211> 306
 <212> DNA
 <213> Homo sapiens

<400> 199
 gaattcggcc aaagaggcct accgtctcaa aaaataaata aataaatagt ctattgccta 60
 agaataatat cctattcctc atttctcttc tttacacatt acacacccca ctaactgtgt 120
 gttctagatt cagcatctt tgtacctatg catatgctgt tctctctgtc tgaaatgtct 180
 ttctctcttc cctcatctg tcagattcca aaagtctctc tgactgggct cagatgtgat 240
 tcttcccgga gaccttctcc caatcttccc caagttgcag tcatctcttc acactgggaa 300
 ctcgag 306

<210> 200
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 200
 gaattcggcc aaagaggcct atcacaagat tccgttatcc tgaaaggcct attatatttt 60
 atgcagtctg ctacatgatg gtatccttaa tttctctcat tggatttttg cttgaagatc 120
 gagtagecct caatgcaccc atccctgcac aatataaggc ttccacagat ctcgag 176

<210> 201
 <211> 198
 <212> DNA
 <213> Homo sapiens

<400> 201
 gaattcggca aagaggccta atcttttctt agcactgctc totcatacat atcaggggtgc 60
 aaatattctt ctgtgccata cagagaaaca aactgctcat catcttctaa ttctctagct 120
 gcacccaaat ctgtgagttt gtacacagac tgtccatctt cccctataac acgcatgata 180
 tttctggct tgctcgag 198

<210> 202
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 202
 gaattcggcc aaagaggcct agtttagata tatatctagt tcaagccaaa ttagtctggg 60
 attagtaagg tttttgtaa cctaactctc gaattactgt ggctttaaat ctaatctttg 120
 actttttccc caaaatctta ttgcattcag agtttctcat tttagattag cttgcatagt 180
 aataaattat agaagtgaag gttgcactta ataagcctgt gcttattttt ccatttgagg 240
 tgcataatc acataagggtg gtattagtgc tcttttgtt tgaagctagt ggccatgttg 300
 tatctgtctc tagtggtttc aagcctagca tcttttgtt ttgttttgtt ttgttttgtt 360
 gagacaagt ctcgtctctg tgcctgggct ggagtgcatt ggcacggtea taactcaetg 420
 cagctcaaaa ctcttgacc caagatatcc taccacctca gctccctcga g 471

<210> 203
 <211> 261
 <212> DNA
 <213> Homo sapiens

<400> 203
 gaattcggcc aaagaggcct atactggctg aaatcctgtc tcaaaaggaa gtgagtcagt 60
 aagaccagac catgttttta tttttatttt ttattttatt attattattt tttgagatgg 120
 agtcttgctg tgtcaccag gttggagtcg ggtggcccg tctctgtcct ctgcaggctc 180
 cactcccggt gttcacgcca ttctctgccc tcagcctccc aagcagttgg gactgcaggt 240
 gccaccacc acacgctcga g 261

<210> 204
 <211> 211
 <212> DNA
 <213> Homo sapiens

<400> 204
 gaattcggcc aaagaggcct agttttgcta agattgcatt ggttatgaaa aactgcagga 60
 acatttagaa gtagattaag agaaaatgag aaatgggatt tttctttttc taatctcttt 120
 tttttggag acacactctt gctctgtcac ccaggcagga gtgcagtggc actgtctagg 180
 cccactgcaa cctccacctc ccaggctcga g 211

<210> 205
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 205
 gaattcggcc aaagaggcct atgtattttt catgatgcta ccttcccttg tgttttcttt 60
 gcacggattc acacacgttt tttacttaga acttgcatat tcacctgctt ggacaggagc 120
 ctgcttggag cacagtcatc ctttgagcac tgtcacccca ttcttcaggg tcccagccat 180
 gcttggecat cacctgattc cccgtagccc cggaagtctc gag 223

<210> 206
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 206
 gaattcggcc aaagaggcct aaccctggct gccctacaca tgcctcttct gctctatctg 60
 cattttgctt accacaaagt ggtagagggg atcctggaca cactggaggg ccccaacatc 120
 ccgcccaccc agaggggtccc cagagacatc cctgccatgc tccctgtctc tcggcttccc 180
 accaccgtcc tcaacgccac agccaaagct gttgcgggtga ccccgtcga g 231

<210> 207
 <211> 227
 <212> DNA
 <213> Homo sapiens

<400> 207
 gaattcggcc aaagaggcct atacagagat actctagccc actcttgcaa caatattacc 60
 aagggtcatt tccagtaatg ccagttaaga gcttctatgg agacgttacc caacatataa 120
 cagttgatta tagcattttgg aaaatatgcc tgaggggaaaa aataatttat ttatcgtcac 180
 tattattatt ttgccttttc taccatctgc tacaggccag actcgag 227

<210> 208
 <211> 211
 <212> DNA
 <213> Homo sapiens

<400> 208
 gaattcggcc aaagaggcct agtttgattt ttttgtaaat aagggaacct ctcaaagata 60
 cttttaaatg aaaagacaaa gggtcagaaa atactggttt tttttttttt ggacagtctc 120
 attctgtgac ccagactgga gtgcaatggc gttgatcttg gctcacagtg acctccgctt 180
 cctgggtcca agtgatgccc cctatctcga g 211

<210> 209
 <211> 152
 <212> DNA
 <213> Homo sapiens

<400> 209
 gaattcggcg cgggtcgacc acgtacgtta ccataccaca gatttatttt gtaaatacag 60
 agaacaatta cactaacatt ctgtttaata taattgttct tctttgcaat atttttgtat 120
 ttacattat gcatttaaaa agttatctcg ag 152

<210> 210
 <211> 249
 <212> DNA
 <213> Homo sapiens

<400> 210
 gaattcggca aagagyccta gcccaaatca atgtgggttc tttggaacat tttcagcaaa 60
 ggaacgcata tgctgcagtg tctttgtggc aagagtctta agaaaaacaa gaaccctaact 120
 ggtaagcgaa acatgcatca tgttatgttt ttccctcataa taacctgtct gttgtctc 180
 gagctagatc tgcagttctg ctatgcagga aggcagggga aacataccag gaaccaggac 240
 aaactcgag 249

<210> 211
 <211> 217
 <212> DNA
 <213> Homo sapiens

<400> 211
 gaattcggcc aaagaggcct actcgacaac tgcactgtaa gaatttcttc tgtgtatttt 60
 ctaattctgt gacaacaggc atcaacaaaa catgtggcct gttatcacat ggttcctccc 120
 tgtgtgcacc ttcatagaga ttttttcctt ttctaaaaga atgaggattc ctctgaatgt 180
 tacactatgc aacaataatg tccccaatcc actcgag 217

<210> 212
 <211> 191
 <212> DNA
 <213> Homo sapiens

<400> 212

gaattcggcc aaagaggcct agtcgattga attctagacc tgcctgagct tcctgtttta 60
 agtacactat tagtaggaga atggatcca taaagttgaa gacgcagcat tgcacgcttt 120
 tcttcacttc ctttaatttc tctcttttca ttttttttcc tgaatatctc ttgaagcacc 180
 aaaaactcga g 191

<210> 213

<211> 272

<212> DNA

<213> Homo sapiens

<400> 213

gaattcggcc aaagaggcct aagcaaaaca cagaagata aataataact taggtcaaac 60
 ctttctcttc cattgggtcc atttgccctgc tataaattat tagttaagtc caaagtattt 120
 tgtataatca attctgtata ataccagaat tcaocttata aattatagtg atttttaaac 180
 atttattctg gactcccat aagttttgag atataaaaat acactgaaat tagaacataa 240
 ataacatgaa ttttagtaaca ctcatgctcg ag 272

<210> 214

<211> 207

<212> DNA

<213> Homo sapiens

<400> 214

gaattcggcc aaagaggcct aattaaagct tatactttga aaatcaggca agtcttttgt 60
 tttggtgtca gtatttcttg tcattcttga tttttttgtg aaagattgga gagcaaaagt 120
 ggtatgaaca gttgtcaatt ctgtaccata gtaagcactg tgatgctatt tcatttttgtt 180
 tttacaagtg aaacaggagg actcgag 207

<210> 215

<211> 231

<212> DNA

<213> Homo sapiens

<400> 215

gaattcggcc aaagaggcct agcagagtca agttatacag tctaataact agaaatttct 60
 aggtacttct cgcagagaat gaaagtggga aggagttttc taacactggg gctttctttc 120
 ccttgtcttt acaaaagaca aagcctaggc agtcagtcag tagcactaga gtattcctta 180
 tgggcattaa gaatttctcc tgtttctctc ctcaatcccc cttccctcga g 231

<210> 216

<211> 159

<212> DNA

<213> Homo sapiens

<400> 216

gaattcggcc aaagaggcct aattgaattc tagacctgcc tactattttt gtgaagaatg 60
 gtattgattt ttgctaatat tctttttttac attcgccatc ttgggtgggtt agagaatatt 120
 ctgctgccat gctaccatct accctccacc ccactcgag 159

<210> 217

<211> 216

<212> DNA

<213> Homo sapiens

<400> 217

gaattcggcc aaagaggcct acttagttca ttccgatttt tcaagttact acacttatgt 60
 aaaaaattac ccccaatttt agtgactttt acagaaatcaa aaaatactta tatgcttatg 120
 aatctgcagt ttaggcaggg cttgggtgggc ctagctcatc tttgctttct gtggggtcac 180
 ctgggtgctt tgatagtggg agcggacaac ctcgag 216

<210> 218
 <211> 213
 <212> DNA
 <213> Homo sapiens

<400> 218
 gaattcggcc aaagaggcct aatttggtcc aatctggccc ttttttttc ttccttcatt 60
 ttctctcccc ctcttggtct ctctttttca aaaatgtttt ataattcctg gaatcaaac 120
 cacttcaggc acacactgtt ttattttact gtattattgg attataccgc ctataaatca 180
 ctggatgtta ctcattggcc accgacactc gag 213

<210> 219
 <211> 196
 <212> DNA
 <213> Homo sapiens

<400> 219
 gaattcggcc aaagaggcct agattgaaat ggtttgccat ctgcttcgta tgtggcggtt 60
 tcttttctat tcttggaact ggattgctgt ggcttcggg cggcataaag ctctttgcag 120
 tgttttatac cctcggcaat cttgctgcgt tagccagtac atgcttttta atgggacctg 180
 tgaagcaact ctcgag 196

<210> 220
 <211> 438
 <212> DNA
 <213> Homo sapiens

<400> 220
 gaattcggcc aaagaggcct agggtttctg agggatttca tacaatacta actccttagg 60
 cctccaggcc ttaatggatt ctgcagggtga cttgctctcc cctgctatct cagcctccag 120
 agtagcctgc ttctctcgca ggcgcttctg tttggttca cggttcctcc gggagatggg 180
 agatccatgg ggcctcgact gtgtagaaac ggagtgaac ctggggaggc cccgtgagtg 240
 cctcagcccc caaatgggtg gtcgaaaaga agcgagaggc aaatgaggca tcaggagtgt 300
 ttggaaaagg gccgagatct gttcaggagg ccccgccgct atcccagggc gccccgcggc 360
 ggcagggact gaggaatcca ccaaacccga ccctggaacg tgcctaaacc gtcgattgaa 420
 ttctagacct gcctcgag 438

<210> 221
 <211> 193
 <212> DNA
 <213> Homo sapiens

<400> 221
 gaattcggcc aaagaggcct aggcaaataa aatgctctc ctccataagg ctgttaaac 60
 aaatcaaaga aactccccct ctcttcttca tataatatgt ttttccttat tgtaattcc 120
 tgcattgtgt agcaggagtt tagggactgt gggcagcaga agaattaggg cgagggcagg 180
 gggtcactc gag 193

<210> 222
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 222
 gaattcggcc aaagaggcct aatttaacgt cggtagttct gctttattaa aatgcagcag 60
 aggtactctt ctgtcccttc cgtttatagt totctgagag agttctatct ttgggttttg 120
 ttttggtgtt tcttttgcac ttgtatctt gtatttatcc ctgatctcga g 171

<210> 223
 <211> 254
 <212> DNA

<213> Homo sapiens

<400> 223

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gaattcggcc aaagaggcct aatctgtccc caagacatca cagctagcaa ccactctacc 60
ttccccaagt aattaaggct ttagagaagt aaaagtcagt tcctcaaaat ctattagatt 120
gggttagaaa atcctatatt ggacaatctc tattagatga ctaatattat taatctattt 180
tagaaaaccc tatcttttac aaactctgaa gtatttttca actacaaaat tccatcatga 240
agattttact cgag                                     254
```

<210> 224

<211> 249

<212> DNA

<213> Homo sapiens

<400> 224

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gaattcggcc aaagaggcct agaactgcat ctagactaca cggattttac ccaaaaagac 60
agcacttgca cttaggctaa gtgtctttct ccacgtaac caatttattg aatcacttta 120
agagtgatca ttggggaaat ttctctctc agccttattt tggccttttg aaacagcaac 180
aaagactgac tagtcaaata actccttagc tgattttacc ctcaaatgag ttttcgtact 240
ttctcgag                                     249
```

<210> 225

<211> 269

<212> DNA

<213> Homo sapiens

<400> 225

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gaattcggcc aaagaggcct agcaggataa agcttaaaca catctcttgt ccattcaaga 60
ccctggggca tctgtttttg ccagcagctc ctcacagggt ccattccatc aaagctggtt 120
cagttattta ccctgtccca gaggcctgtt ttgcctgtt gtcacttggt atgcttctct 180
tatgcaataa tattttgtat gaaggttctt cccaggcact gtgcttgga ttttacacca 240
tatttaattc tcacagcacc agactcgag                                     269
```

<210> 226

<211> 211

<212> DNA

<213> Homo sapiens

<400> 226

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gaattcggcc aaagaggcct agtctagatt tctttcaaac aaaaattaaa gagcaagaat 60
cattactgta taaatttttc ccagaggaga aaatttaatt tttccttata tttccaggat 120
tatgcgtgtg tcatatatat atatatattt ttctacattt atttttcttt ctttttttaa 180
cttttgtttt aggtttggtg gtactctcga g                                     211
```

<210> 227

<211> 215

<212> DNA

<213> Homo sapiens

<400> 227

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gaattcggcc aaagaggcct acatgttttt tcatgctttt cttttcctct acctgcaaca 60
tctccacat tcttctctc cagggtcacc cctatgcatt cattgcttct actgccatct 120
ccttcaagac aacttgctcc tggaaaccaa atcaccttc tctctgctcc cacaggaccc 180
tgtgcacatt tatatccgag tactcaggtc tcgag                                     215
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<210> 228

<211> 237

<212> DNA

<213> Homo sapiens

<400> 228
 gaattcggcc aaagaggcct agccagtgc aaaggagctt accaaaggca gtgtacgaag 60
 aagggttcctg ggagactgtc agaaatgagt ttttactga acttcaccct gccggcgaac 120
 acaagcaacc aaccattttg ctttgccctgg tgtgtctgt ttttagcact gaaagtccctg 180
 ggcagctctc tggacaatgc ggatgacgtc ctctcctgtc acaggtggga tctcgag 237

<210> 229
 <211> 101
 <212> DNA
 <213> Homo sapiens

<400> 229
 gaattcggcc aaagaggcct agtttgtgtg cagggataat gttatctgtc ttaggaggca 60
 atggggtcaa tctggttact tgggtgaccc cactgctcga g 101

<210> 230
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 230
 gaattcggcc aaagaggcct actaaaattc ttatagtctt aataataaag agttagcttt 60
 attatattga gtttaaggga gaggaatctt ttaaaattct gagtgggtgag agaaatatat 120
 atgaattttt ttttttacac aaatgagttt tcattgggtca tgtttctttt tattttctct 180
 gtgtagggtgt aattgttatt tattgctgca gaacaaatta ccacataaac tcgag 235

<210> 231
 <211> 344
 <212> DNA
 <213> Homo sapiens

<400> 231
 gaattcggcc aaagaggcct aatatgttag tcagggttgc actgagtctt cttccaatcc 60
 ttcagcctgg acaacagagt gaggtccctt tgtggccaga ggccagccct ccttgccctgc 120
 cttcctttga cctctctttt ccattccatga agccctcagg cccttgccat tttttcacca 180
 cagaaaactc atggcttctc cagaagcctg agtatctctc tttccagca caaatggcag 240
 catctctatc ctgccccatc tgggcccactt cagcttctctg tagacaccca agacagatgg 300
 acagtgttgg aggggaatcag gctttgagga tccagagtct cgag 344

<210> 232
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 232
 gaattcggcc aaagaggcct atctttaaca catttttga tttgatttgt taatattttt 60
 agtgttgagg atttttacat ctgcttatga gaaatacttt attggtctat aatttcttcc 120
 agtatctttg taattttttt ttaagagatg gggctcttgc ttgttgccca ggctggagta 180
 caatgtgcaa tcataggtct ctgcagcctt gtattcctgg actcaagcaa tctctcctgc 240
 tcagcctctt gggtagctgg gactacaggt atataccacc atgcccagct tctttgtgtg 300
 gtttttagtga cagagatctc gag 323

<210> 233
 <211> 478
 <212> DNA
 <213> Homo sapiens

<400> 233
 gaattcggcc aaagaggcct accctgatcc ccttctcaga acagcacagt gtccccacca 60
 agtgctaata aatgttggtg gataacagaa caatttggtt taaatctcct ctacagagc 120

agaatcgccct ggagggattt tgccttgaaa attaaattct gatatcaatt tctaaaatta 180
 tttacaatat taaagttgaa atgaatccat cacacagttt ccttccaatg ctagtctttc 240
 aagtgaacct actttcctat tagcagtcac ctaaaaacaa ataagcaaac aaacaggtaa 300
 ctacgtcttc cctctgactc agtgtgagga aagggacagg cagcatctgg tgacagetta 360
 cttcagtggtg tctccatggt tcttcaccaa aacoacttgt gtttcctctt caagcaccac 420
 agtatcctat gacactaggc cagtgggctc tcaaaactttt ggaattcagg aactcgag 478

<210> 234

<211> 119

<212> DNA

<213> Homo sapiens

<400> 234

gaattcggcc aaagaggcct atctagacct gggtaagtta cagaggcaaa taaaaccagc 60
 aattataaca aaatatatga agtatgatgg tagagatata tattatacgg gctctcgag 119

<210> 235

<211> 253

<212> DNA

<213> Homo sapiens

<400> 235

gaattcggcca aagaggccta gaggaatctt gtcttttcta catgtttggt tgtgacatat 60
 tagatctggt tgattcctct gtcttagttt tgaaatgtgc atgttatccc agctttccat 120
 tatttggttg tccttttaagt gtgctctga tatgttgac ttatggagag gtcacacctt 180
 gccagctgcg cttaccttac ctatacttgc caacctaggg gtctgtact gtcaaacaca 240
 gcatcaactc gag 253

<210> 236

<211> 244

<212> DNA

<213> Homo sapiens

<400> 236

gaattcggcc aaagaggcct aaaggaatgc ttccacaata gtgtatcagt tcttttggtt 60
 tgctaaagtt ggaatttatt ctgttgccag catttaagta gtcatggcaa gtcctgtttt 120
 taagaccttt tggagactgg agctttctgt tccattaagt cttttgttta tactacaaat 180
 tgtcacctca cttagttcag atgaaatctg ttactctaca aggaagggtg tcatcaatct 240
 cgag 244

<210> 237

<211> 171

<212> DNA

<213> Homo sapiens

<400> 237

gaattcggcc aaagaggcct actttgggat tggatgatac agcttttgct tctgtgtagt 60
 atacctgtac atacttgttt caggcagcct ttctttaatg ttttcagttg gtttgtatct 120
 tgtagctcag tagctgctaa taaagttaaa gatcctgtgt ccagtctcga g 171

<210> 238

<211> 200

<212> DNA

<213> Homo sapiens

<400> 238

gaattcggcc aaagaggcct ataccagtgc attaatgttg gcaaggaaa tgatcataatt 60
 tgatactgta tctgttttcc ttcaaagtat agagcttttg ggaaggaaa gtattgaact 120
 ggggggttgg ctggcctact gggctgacat taactacaat tatgggaaat gcaaaagtgt 180
 tttggatatg gctcctcgag 200

<210> 239
 <211> 238
 <212> DNA
 <213> Homo sapiens

<400> 239
 gaattcggcc aaagaggcct agttgggaca atagtaaacg gacatggcac actggtgggc 60
 atgtcttatg aaaagctgct tttgcccctt ccctgtttta tctagtcttc attttggctc 120
 ggtgtctgag ccagctcca ggtccagcc ccgctccca cctcgaagg agggacaagt 180
 tcctgtctggc ctctttgata agggcactaa tcctattcat gaggatggag ccctcgag 238

<210> 240
 <211> 250
 <212> DNA
 <213> Homo sapiens

<400> 240
 gaattcggcc aaagaggcct ataggcctct ttggccgaat tcggccaaag aggcctagtc 60
 agattatgat aagtgtctgt gattaaaata aagcaggga agagaatagg aaattctagg 120
 ctaggttgag ggtttgtaat ttaaaataac atagtcagag aagtcatgaa ggaaaaatac 180
 ctgagacaggt ttgttttgca cagatttatg gaaaaagtgt ccagggcaga aggaatgcaa 240
 ggctctcgag 250

<210> 241
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 241
 gaattcggcc aaagaggcct aataactgtc aagtggactg gatacactaa ccagtatatt 60
 ccaccttagg caatctctgt gttaaagtga ttactagat tatttagtga ctgtactgta 120
 gctgaaatag aacgcaatgt tgccaaatag aaaaatactt ttactgggac tgaagataat 180
 tttttttttg aggcggagtc tcgctctgtc gccaaacctc gag 223

<210> 242
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 242
 gaattcggcc aaagaggcct ataaagtgtt attttcactg aaatgattgt ttgctgggtt 60
 atgcttgggt atatttttagc gggttatatt ttgaaaggca tctgttactt cagtggcata 120
 aagtgccttc acactgctgt gcagccatca ccaccattca tctccagaat ttgttctcag 180
 tcccaaactg aaactatacc attcaaacaa cagcgtctcc catttccca tccctcgag 240

<210> 243
 <211> 268
 <212> DNA
 <213> Homo sapiens

<400> 243
 gaattcggcc aaagaggcct agtctgggac tttcaaatct tcagaagagc caaatccagg 60
 ggaagtagca ggcttgcaat cttcaggtta agaagcagct ttgaatctga gcttcataac 120
 gaaagaagag atgaaaaata ccagttggat tagaagaac tggcttcttg tagctgggat 180
 atctttcata ggtgtccatc ttggaacata ctttttgag aggtctgcaa agcagtcctgt 240
 aaaatttcag tctcaaagca aactcgag 268

<210> 244
 <211> 190
 <212> DNA

<213> Homo sapiens

<400> 244

gaattcggcc aaagaggcct accaaactat aactgtcctg cttttcttta ctggtaatat 60
 gatttccaat gtcgtacttt ttcattgatc ctatcctaaa agtgtgcata agttttattt 120
 gttttttacc atttgttttt tgttttgttt tgttttttta cctagagaag tgaaaggggc 180
 acccctcgag 190

<210> 245

<211> 286

<212> DNA

<213> Homo sapiens

<400> 245

gaattcggcc aaagaggcct actagatttt tctttcaaatt aaaattttta ttcaaaattt 60
 ttagatacag aacaatatta tttcttaatt gggcttgctt taaatttgta aataaacata 120
 aagggttgac aacttttgga tattggaact ctgcaactaa gtacataata tgtatttcca 180
 tttgtccaga tctacttttg tgtcttttgg aagtgtttta tggtttactt catgtatgat 240
 cctcatgtat atttattatg tttctgtttt aatacgttca ctcgag 286

<210> 246

<211> 222

<212> DNA

<213> Homo sapiens

<400> 246

gaattcggcc aaagaggcct attagaaaac actttctctgg tgaagctgaa acattatata 60
 attcccttga gccatcttat cagaagagtc ttcaaactta cttaaagagt tctggcagtg 120
 tagcatctct tccacaatca gacaggctct catccagctc acaggaaagt ctcaagtaag 180
 gtcataataa taatgattac tagtctcttc ctcatcctcg ag 222

<210> 247

<211> 254

<212> DNA

<213> Homo sapiens

<400> 247

gaattcggcc aaagaggcct actttagtct gaaccgggat cttacaggag aattagagta 60
 tgctacaaaa atttctcgtt tttcaaatgt ctatcatctc tcaattcata tttcaaaaaa 120
 acttcggagc agatacgaca aagggtcttt atattggcct gagaggagag tggactgagc 180
 ttcgccgaca cgaggtgacc atctgcaatt acgaagcacc tgccaaccca gcagaccata 240
 gggtctact cgag 254

<210> 248

<211> 264

<212> DNA

<213> Homo sapiens

<400> 248

gaattcggcc aaagaggcct aatttaagga atggtgacta ctgaggagaa ttgcagctct 60
 gaatacttag catattcttc attcattaaa cttttattaa gtgcctgtgc tgtgctagtc 120
 actgccagge agctgcctga tacatggctc ctccctgctg ggagctccca gtctgagaca 180
 gaaaggtcaa cagttctaat ggcaggagtt aagtgccatg agagcatatg ggaggggcag 240
 ccttaagacc aggataagct cgag 264

<210> 249

<211> 263

<212> DNA

<213> Homo sapiens

<400> 249

gaattcggcc aaagaggcct acgattgaat tctagacctt cctctctcat cttttgctct 60
 cctcttaggt tttctcctta ttttccatag caagagtgtg cagagtttg attggtgaga 120
 tttaccattt gatatactca cataagttca ggtttcagaa tatctataaa tttatgatta 180
 accaagggtt gttatatata attcacttgg catattgtga ctgtttattc tatccctaca 240
 ctggggtagc accccagctc gag 263

<210> 250

<211> 113

<212> DNA

<213> Homo sapiens

<400> 250

gaattcggcc aaagaggcct aggttgggtga caatgggtatt gtgggtatta ggacaattat 60
 ttattttgcc ttggtgtcag aggcgtgtga accagagcaa ctctcatctc gag 113

<210> 251

<211> 244

<212> DNA

<213> Homo sapiens

<400> 251

gaattcggcc aaagaggcct agtgtagctt gggtttattt atgtccacaa atatttcaaa 60
 aaaattacaa aatactcaa tggagagaac acagaagtca cgatttctgg gtgtctactg 120
 tttacactgt gttatctcat ggcaaacrac tcatatatac atttggcttc aagatatata 180
 gaaacgtagc aaatccgagt gtgcacgtg cctctgccgc agtggagtga agctcaacct 240
 cgag 244

<210> 252

<211> 291

<212> DNA

<213> Homo sapiens

<400> 252

gaattcggcc aaagaggcct aaatttatta aggggtagat cacttttaga aaaattgctg 60
 gaagtaattt ttcattgatca tgttatctac attctaaaaa ttaggagaga gactgtgtac 120
 aaagagtgtt tatttttagag ctttccttgt atttcaaatt gaataacagg cattctcgc 180
 ataaagtgtt taaaagaaag gcaaagcaga ctttctgtag gaaatcattg acgttaaaat 240
 agttataatt gtgaacagat acaacattta ttcattgaagg taattctcga g 291

<210> 253

<211> 195

<212> DNA

<213> Homo sapiens

<400> 253

gaattcggcc aaagaggcct agttattttg ttctgtcttg tcatgtgcc aaaaatatgt 60
 acttttttca cttttttccc ttgttatatc agttacgggt tacaactggt tcattctgaa 120
 aacaacaaca acaaaagtcc attcatattt tttaacaatt gtataagtgc ccaagtaatt 180
 cactacagcc tcgag 195

<210> 254

<211> 284

<212> DNA

<213> Homo sapiens

<400> 254

gaattcggc cgcgtcgac tttttgatgg aacacagttc tgtgatggga agctatccca 60
 gtctcccatc cttgcaaaac tgctgcttag tactcaggtg ttctctaggt tgttctggaa 120
 catttacaaa cttcttttggg tgtgaggatg tgctgccaca aggccaaaaa tcacattctc 180

tctctctctc ctctctctc taccattctc ctcagtcca ggtggggaca gattccacc 240
actgggctg ggaggaagaa aagcacctg gccccgtct cgag 284

<210> 255
<211> 219
<212> DNA
<213> Homo sapiens

<400> 255
gaattcggcc aaagaggcct acttgggagg ttgtgtgttt ccaggaattt atccatttc 60
tctagatttt ctagtgtgt gcagagagg gtccatagta ggcattgatt gatgatctgt 120
atctctgtag gatcggttgt aatgttacct ttgtcatttc tgattgtgct gatttggatc 180
ttctcccttt tttttattaa ttctgctagt ggactcgag 219

<210> 256
<211> 180
<212> DNA
<213> Homo sapiens

<400> 256
gaattcggcc aaagaggcct agcatactgg tacatgagag cagttagtgtt gtttgccttt 60
atcttcaacc agggagctat ctggcacctt ttgtgtcctt ggcttttttc aatcatagca 120
ctattgcac tcctagctat ttcttttggc cagcagggtta atattgagtc ccactctgag 180

<210> 257
<211> 500
<212> DNA
<213> Homo sapiens

<400> 257
gaattcggcc aaagaggcct aggaagagac tagaagaaca gcacgcccag caattatcac 60
tactcatagc tgagcaggaa agggacaag aaagactgca aaaggaaata gaagagcagg 120
agaaaatgtt aaaagagaag aaggcaatga cagcgggaagc ctctgagttg gacattaaca 180
atgcagtggg attagaatgg agaaaaataa gtgactctag ttgtctggaa acaatgctgt 240
ctcaagcggg ctcactccat acttcaaatt caaatagttc tggtttcaca aattctgcca 300
tgcaatatag ctttgtttct gcaaacgaag caccattcta cctctgggga tcatcaacta 360
gtggcttgac caactctca gtaacaaggc cttttggaag agccaaaact agatgggtctc 420
aagtttttag tctggaaata caagcaaat ttaacaaaat aactgcagtg gcaaaaggat 480
ttcttactcg tagtctcgag 500

<210> 258
<211> 302
<212> DNA
<213> Homo sapiens

<400> 258
gaattcggcc aaagaggcct agtgcaaat taaagaattc catgataact atgttatttt 60
ccatttgcac gtgcatttgt ctatcgatcc ctaaaatata tcttaaatta gtctgctttt 120
ctccactttt cccctccat tttattttta tttattttatt tattttgaga caaggtctag 180
cactgtcgcc caggctggag tgcagcaaca caatcagggc tctctgcagc cttgacotte 240
caggcccaaa tgatcctccc gctcagcct cagagtagc tggggcggga ggaccactcg 300
ag 302

<210> 259
<211> 283
<212> DNA
<213> Homo sapiens

<400> 259
gaattcggcc aaagaggcct ataaagatta ttatattaat tcaactttga tctgatatat 60

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cacttaaaact aaaggggtgt gtgtgggtgt cgcttggttc ctattctctgc tctttaaga 120
tactttgaat caataaaacc attagtctac aaatcaaatt gtgaacttaa tctctagaaa 180
gagaatataa ctcagccatt tataggaatt taggtccaag tacaggatat atgaaatctt 240
ttcccagtat ttcagaatgt acttaattca cagatcactc gag 283

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<210> 260

<211> 279

<212> DNA

<213> Homo sapiens

<400> 260

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gaattcggcc aaagaggcct actggcctca agtgattctc ctgcctcggc tcccaagggt 60
gctggaatta cgggcatgag ccactgcgcc tgaccagaaa agtgggtttac ctgataaagt 120
ggcatttgaa ctgagatctg aaagtagaac atacttgaag tagatgaaga gaggaatgac 180
aatattttat agcagaaagg acagcagccc ttggtggcag gaggcattgt gtattccagg 240
aacgaaagac caatgcagct gtagtggagc accctcgag 279

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<210> 261

<211> 208

<212> DNA

<213> Homo sapiens

<400> 261

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gaattcggcc aaagaggcct aggtttgcct ctccctacag cacagagtta tcatcattat 60
ccatacaccc atagaattca gaacaatctt ttccctagtag tagaattggg gcatcatgat 120
tatttacatg tccatcttgc aattaataaa aatactaaca atactaacat acgttgggtca 180
ggcaggcact gcacaaagcg acctcgag 208

```

<210> 262

<211> 160

<212> DNA

<213> Homo sapiens

<400> 262

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gaattcttggg actaaattct gtaacatctt cgtggatcgt tctgctactg tgggaaagac 60
agcattttgt tacagcagag accagaattg agaaaaccag aataaaaaaa ctgttcccta 120
ggccatgaag gccggccttc atgccctagt tctccctata 160

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<210> 263

<211> 226

<212> DNA

<213> Homo sapiens

<400> 263

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gaattcggcc aaagaggcct acgttgaagg acaccagctg cgggaatttgc ggctttggca 60
gattgaaatc atggcagggtc cagaaagtga tgcgcaatac cagttcactg gtattaaaaa 120
atatttcaac tcttatactc tcacaggtag aatgaactgt gtactggcca catatggaag 180
cattgcattg attgtottat atttcaagtt aaggtcccca ctcgag 226

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<210> 264

<211> 201

<212> DNA

<213> Homo sapiens

<400> 264

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gaattcggcc aaagaggcct aatgccatcc cctctgcctg gaatgccctt ctgcatgaat 60
gcctgtgaaa tgtgttgct cctttgtatg gcctggcttc cgtgggttgg aggaatctct 120
tctttctgg tattcctgtc atctttgtgc accacagtc gctttgtatt cctagettgt 180
aagctacggg agaaactcga g 201

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<210> 265
<211> 229
<212> DNA
<213> Homo sapiens

<400> 265
gaattcggca aagaggccta gtatgtgtgc tttctttgcc ttcctatttc ctttcaaaga 60
aatctcttgt aaattacaaa actgtgaatt gggttgccaa aaactgttgc ccttcgttag 120
atgcttcaaa cagtgtaaat cctatactgc accctgtcca cctctgctcc ctctccctc 180
ccctgagagt gaggacctca tccgaccatg taattaccat tcgctcgag. 229

<210> 266
<211> 249
<212> DNA
<213> Homo sapiens

<400> 266
gaattcggcc aaagaggcct actttaacca tccctcccta tgaagtataa aaaaggtagt 60
gccagctggg tgcagtggct caccgctgta atcgagcat tttgggaggg cgaggtgggt 120
ggatcacctg aggtcaggag ttcgagacca ggtatggcgg catggcgaaa ccgcgtctgt 180
actaaaagta caaaattagt tgggcgtggg ggtgcgtgac tgtggtttca gctacctgga 240
gaactcgag 249

<210> 267
<211> 276
<212> DNA
<213> Homo sapiens

<400> 267
gaattcggcc aaagaggcct agtaggggag tgcgtgaggg cggcgctgat tgataggagc 60
caaggccaat cataacgatt accgtagact ggaaggcgga ccaagaatac gctaattgagt 120
tgctaatctt gacagatgtc cttcggcctt ctccgtgtgt tctccattgt gatecccttt 180
ctctatgtcg ggacactcat tagcaagaac tttgctgctc tacttgagga acatgacatt 240
ttgtttccag aggatgatga tgatgatgag ctcgag 276

<210> 268
<211> 312
<212> DNA
<213> Homo sapiens

<400> 268
gaattcggcc aaagaggcct agtcttcaat aaattgatta gtatcaaagg gaagatctta 60
aatcttggag cttttctttt tggaaacctt taattcagtt cctgtcacac cttectttga 120
tttttaaaaa aatctccctt taactgttct gggatctcac tgcgtctccc acacgcctaa 180
caccacatcc ctccacattc acccaagggg agacactggg ggaggcaagt gtatggaatg 240
tctttgcatt tagatgctgg aactctgaca tcattctttt tattcataag tttattcaac 300
actatactcg ag 312

<210> 269
<211> 187
<212> DNA
<213> Homo sapiens

<400> 269
gaattcggcc aaagaggcct agagttactg aagcacatca aacacaaaga cagtaattat 60
cagaggtgcc ttcttacatc agcgatttat gcactccaag gccgcagtgt ggctgtgcaa 120
aaacaaatat ctaaagctgt tcacagcaac cctggtgacc ctgctctttg gtctctgttg 180
tctcgag 187

<210> 270

<211> 328
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (31)

<400> 270
 gaattcggcc aaagaggcct actgcacgtt ntgagcatgt acccatttaa ccaaaactta 60
 aagtataatt aaaaaaaaaa gaataagaat acaacaataa aaatacatat aagaacaat 120
 ggagtataac agctatttac atagcatttg catcatatta ggtattctaa ctcatctgga 180
 gatgattgaa agtatatggg aagatgtgcc aaggttatat gcaataacta tgccatttta 240
 taatagggac ttgagtattt gcagatttgg gcattctctgg gaggtcctgg aaccagtcgc 300
 ctcgataacc aagggtacggc aactcgag 328

<210> 271
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 271
 gaattcggcc aaagaggcct agcagtaatc tctatgatgt tctctccttc tctgcttcaa 60
 cccagagccc tcccttcccc acctctcaga ctctccact gtgccatgtg gaagtgtcac 120
 aacacaacca catgctctgc tgtatcatct ccttgcctcg aaaagtctg tttgctcgcg 180
 acttcattga gacccatcaa actcgag 207

<210> 272
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 272
 gaattcggcc aaagaggcct acaaaatc attattccgt aatttcctaa agtgcacttg 60
 tatgtattga aaagattata gatagaaaca tacataactt ttaaagtgtt tctatgcgga 120
 atttctcatt atgtccagca tgtggtttac catgtttatc atctcctgtt gtcttaaggt 180
 caggggttgc aacaaggagg gtcaaaattg gccggggctg agcacaata cacacccaca 240
 gcccttcagt gacctcagge agcaagatgc ctcccacctc cccccaacac ccaagctcga 300
 g 301

<210> 273
 <211> 149
 <212> DNA
 <213> Homo sapiens

<400> 273
 gaattcggcc aaagaggcct aggcacgtc tctctctacc cgaccaacct cctaccacc 60
 tgaagcctt caacctgcgc atcagcttcc cgcgggagta tccgttcaag cctcccatga 120
 tcaaattcac aaccaagacc tgcctcgag 149

<210> 274
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 274
 gaattcggcc aaagaggcct aatctacttt tatctataca gtacacatag aaggctatgt 60
 gactatttag aattcaatgt ttgtttacta gttcatcttt agcttacatg ttcattagtt 120
 ctgagtagaa ccaagaaaaa ctaattgaag agtatatgct tatgtattat ctcttgcgtg 180
 gatttaacca atcttgttac atgtattact aataaaagtc cccagctcga g 231

<210> 275

<211> 291

<212> DNA

<213> Homo sapiens

<400> 275

```

gaattcggcc aaagaggcct aatctattca aactataaga agattacctg ctgacatacc 60
tcaatatttc tatagaaatt gcgattgata ttccaattta agggagtaat catctagaag 120
agacatatac aactggtgag aaaacacatt tggctcggca cacttgtaa catagtacgt 180
ttatatttat gaatgacgaa cagcatgaca tctgaagaca acatcatcaa gagaaagatc 240
caggatgaac taaaaacaaa ccaaaacaaa tcaaccctgg agaaactcga g 291

```

<210> 276

<211> 271

<212> DNA

<213> Homo sapiens

<400> 276

```

gaattcggcc aaagaggcct acgtcatcat agctcacggc agccttgaac tccagggttc 60
aagcagtctc tcctgccttg gtcccttgag tagctggcac tacagacata cgccaccaca 120
cctggccttt tttttgagag gagaccttgc tgtgttgccc agcctggtct tgaactcctg 180
gcctcaaatg atcctcccaa agtgcctgga ttacaagcat gagccaccgt gccagccca 240
cttcataaat tttagtcatg caatgctcga g 271

```

<210> 277

<211> 233

<212> DNA

<213> Homo sapiens

<400> 277

```

gaattcggcc aaagaggcct aaataaacag acgtctgtgc tactggagtt cctcctggct 60
ccttgggtgag agtagagagg taatctcggt ttccaatat aatcttttag gtgtttgctt 120
caggtacctc ttggaagtag acactgagga ttccagtttg tttgacttcc tgccagctga 180
gttcaagagy acaagctaata gaatacctta tgtttcttgc acacatcctc gag 233

```

<210> 278

<211> 283

<212> DNA

<213> Homo sapiens

<400> 278

```

gaattcggcc aaagaggcct agtgattatt attaaggata gtaacccttt ggcattattg 60
ctgcaaatct ttctcctaaa ttttactca cttcttagct attggcttg atgtttctga 120
cataaagaga tttttaattt ttatgtgtta tatctttgga tctttttctt ttttattctt 180
ctcgttatct ttacacttag aaaattctca tgtacgccag gtgcgatggc tcatgcctgt 240
aaccacagca atctgggagg ccgaggatgg tggatcactc gag 283

```

<210> 279

<211> 222

<212> DNA

<213> Homo sapiens

<400> 279

```

gaattcggcc aaagaggcct acagagataa tctggcttgg ttaccctcat aatctaattt 60
cagaaaagaa agctttattt taacacctcat ctgaatcaac attaaagcct tttctctcaa 120
agcgtttatt gagaaactca aatgaatata ctttttgaat tactgtcatc aaaagtgtac 180
ggcttctgtg gctgcttgtg tcaaatggaa ccggacctcg ag 222

```

<210> 280

<211> 347

<212> DNA

<213> Homo sapiens

<400> 280

```
gaattccgcc aaagaggcct agtaaatcca ccacaaaaat tattaatcct cttgagagaa 60
acgtgaaacy ccacaaaaat agagaaaatt cagggtctgta tgtcatggat cgtgttggta 120
ttttcagaga acatccccgt tctgaagctg ctgcagctcc ctctcaggg atcacactgc 180
cgtcacccac tctgcactgg ggcgtttctt actgcgcctc gtgctggcgg acgcagctgg 240
gtgcagaagc tgtggggctg gagaggcgtt tggagaaggt ctgtggtgca gtgtgtgaaa 300
attcaggctg tagaagccta ctggtagaaa aacccaaaaa gctcgag 347
```

<210> 281

<211> 159

<212> DNA

<213> Homo sapiens

<400> 281

```
gaattccggcc aaagaggcct accaactctg gacaaattga tgacccccag gagcagcaca 60
gagtcacacag cagcaacctg gccctcatcc aggtgcaggc cactgtctgt gggctcttgg 120
ctgctgtggc tgcgtctgtg ttgggcgtgg tgtctcgag 159
```

<210> 282

<211> 207

<212> DNA

<213> Homo sapiens

<400> 282

```
gaattccggcc aaagaggcct aatttttggg ggttttagtg atcagtaatc aaatttgtac 60
ttattatgct tgttcaggta atttacttga ctgttctatt tgtttgtcca aaagataaaa 120
tgatgagaga gattcgagag gtctttgatc tgtctccctt ttaagaaatg aagccagctg 180
gtaattgtata ttcaggagccc tctcgag 207
```

<210> 283

<211> 328

<212> DNA

<213> Homo sapiens

<400> 283

```
gaattccggcc aaagaggcct agagtacttt tgcataatatt atttaacccc tccaacagtg 60
ctttgaggaa gataactatt tttatcccaa tttgctcgta gggaagattg cttgaagtca 120
cactaaatag tagagccaga attcaaacca aagctatctg atccagttcc taccattctt 180
aaccattctg ctaatttcca gaagtccagc tgataaagtg taaaacaaaa gttgtttgtt 240
gctgtttacca agaaaatata aggggaatgct ttctactaat acatcagcag cctctcttct 300
tcttcccttc tctcctccta ctctcgag 328
```

<210> 284

<211> 323

<212> DNA

<213> Homo sapiens

<400> 284

```
gaattccggcc aaagaggcct agtggagaag aagaaagcca ggtacccac actaccaacy 60
atcagaagtt tgccaacacag gaagaggaag tcagtaactt tatccaggac agtcactctg 120
ataatgtttc tcatgagcag gaagaaggca ttcttgccg aggtgcagaa attggtgccg 180
tagatggcaa tcatgatgta ggcattccta ttaaggaatt tgatgaactt ctccaggcac 240
cagaagcagc atttgagaca ggtcatgagg cacttggcaa acttgttctc tgcagcttct 300
agccgctgat ccaggtactc gag 323
```

<210> 285

<211> 410

<212> DNA

<213> Homo sapiens

<400> 285

gaattcggcc aaagaggcct accacgatga cagattacgg cgaggagcag cgcaacgagc 60
tggaggccct ggagtcctac taccctgact ccttcacagt attatcagaa aatccaccca 120
gcttcaccat tactgtgacg tctgaggctg gagaaaatga tgaaactgtc cagactaccc 180
tcaagttttac atacagtga aaatacccag atgaagctcc cctttatgaa atattctccc 240
aggaaaatct agaagataat gatgtctcag acattttaaa attactagca ttaaggctg 300
aagaaaatct tggatatggt atgattttta ctctagtgc agctgtgcaa gaaaaattaa 360
atgaaatagt agatcagata aaaactagaa gagaagaaga aagactcgag 410

<210> 286

<211> 387

<212> DNA

<213> Homo sapiens

<400> 286

gaattcggcc aaagaggcct atcggttttc aggtctttatt aacaaacggt gtaaaaaacc 60
agacggtatct ggaggaaggg acagggctgc ccgtctcagc tctcaacctt cccagagagg 120
ggccaggcct ggcagccctg tgcgtcgcgc ctcttaagca gtcaaccttg tccccccaa 180
ggacaggcat ctgacccaat ccaggtccca gggaggcgga gtcgcaaac ctaactctgg 240
ggtgtattct gctcggcctc ctctccccct ccccagatag ctctcccagc ctggggcagc 300
gacagcacag actttgcaga catcacccgg ggaggtttct cagtgcagac aggagctgag 360
gtagggttg gagaggctga cctcgag 387

<210> 287

<211> 369

<212> DNA

<213> Homo sapiens

<400> 287

gaattcggcc aaagaggcct aaaagtatct actagaataa taattccctg gccctattgt 60
cctttatttt aaaaactatt ctggtatatt gctacatttc tttttctcta caaacttaaa 120
attattttgc cactttatcc ttcctaaata aaccatatcc gtttttatt tagtgaagtc 180
acattgaaag tattaactgt ttgcataaga tattcttgta atatccagga tttcttataa 240
gaactgagat tttttaaaaa ttattttctg tctcagtaaa gcttttttct acacagatat 300
ctaattatgt cacttaaggc aattactagt tgtttatttc atgtaatat attccgggtt 360
gctctcgag 369

<210> 288

<211> 211

<212> DNA

<213> Homo sapiens

<400> 288

gaattcggcc aaagaggcct agaaaagttt cctgctcag atttttcact gtgctgcact 60
gaagtttctg ttgagtgttg ccccatcaca gcaaatgtat gttacttatt tccacacata 120
acagattatg ctttcattaa catcccagct gctgcatttc tcttcagct ttttaacttc 180
cgtaaattca catctttaca tgttactcga g 211

<210> 289

<211> 581

<212> DNA

<213> Homo sapiens

<400> 289

gaattcggcc aaagaggcct aggaatagca aatagaagtg ctagtattta ctgagtgcag 60
tgattgctac agttggtttt aagtaaaaca gattgttttt gattattttt aaatcaggca 120
ataatatata atgctgttta cagttcttta aaaaatatgt aacttaaaaa ctcagattgg 180

```

gaaggggtaa caatctgagt ttttcttttt ctctaagtgt tctgtgaaaa ccttttttta 240
agtcgttcct acttcaggta ttatcacaaa tgttttgattt ctatatgtat gccttaagtg 300
atatatgaca cttttttttt cttgactcct ccttgcgga atttcattac ttgttcatag 360
tttgaatcta agaaatattt gcttttcata gtcagcaggg ccaaaacttt ggtcttgaca 420
actttttgtc aggcattttt acatatcgac agtgtttttt cataaactgt attgcttttg 480
caagtatata gtaaatTTTT ttcttaattt tcagatgtta tagtatcaaa aattcaaaga 540
cctaagtttt aaaaatgtaa ttgtttgcag taatactoga g 581

```

<210> 290

<211> 264

<212> DNA

<213> Homo sapiens

<400> 290

```

gttttaactg ccttcttttt tctcacagag gtggttatg gcagattttt cctccttcaa 60
actccaaaca taatttttaa gactatgtgc cagtggactc ttcccttata tctctgcacc 120
acaagtgttt ggatgttttc tcttctctcc ttatgtctac ctcaccaacc tcgctcatca 180
tttggccctt atccttccct gtacacctac cttcagattt ctgcttacac ttgtatttca 240
gagctttatc ccccagtcct cgag 264

```

<210> 291

<211> 151

<212> DNA

<213> Homo sapiens

<400> 291

```

gaattcggcc aaagaggcct acgaatacct tcatttacct gtgtcttctg ataacacctc 60
tcagaaagct atagtctctg aaagtctcta taggatttct aaaatttcaa atatgcagtc 120
acttaaaaaa aaaccacacc acgtactcga g 151

```

<210> 292

<211> 476

<212> DNA

<213> Homo sapiens

<400> 292

```

gaattcggcc aaagaggcct attacctgta gtttgctttt tattggatat ctatttatta 60
tatatacata cttttaatga agcataataa atatatgaga atgtgcacat atcaaagtca 120
caactgtgcc aattttttaca ctgttcactt ttgtaacaa tactcagatc aagaaacaga 180
acattagcaa taagaacata gcaacaaagt gccttctcgt cctccttctt tctagttact 240
gcctgcctct tcaaaagtta cccttgctga cttgtaacta ctagactagt ttaatctatt 300
tttggacctt atataaatgg aatcatgcaa ttatatatat atatttattt tcatgactgg 360
cttcttattt tccacattat gtgagcaaga ttcattccata ttgctgtata taggttctca 420
ctacttcata atctatatgt tatttcatta tgtcactaca acaaggttcg ctcgag 476

```

<210> 293

<211> 503

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (28)

<220>

<221> unsure

<222> (93)

<220>

<221> unsure

<222> (111)..(112)

<400> 293

```

gaattcggcc aaagaggcct agccattntc ctgectcagc ctcccagagt gctggggctg 60
cggttgcccg ccgccacgcc cgactaattt ttingtatttt tttttttttt nnagtagaga 120
tgggttttct cctgtgttggc caggatggtc tcaatctcct gacctcgtga tccacccgcc 180
tcggcctccc ggggtgctgg gattacaggc gtgagccacc gcgcccggcc ttttttagaa 240
ctttctagga atctgttttt ccaattgctt tgtatatcag gctctctgcy tctgtcagaa 300
ctgctactgc atgtataaca ctgtctttaa tgttcacttt tgtgttcaga tatttgata 360
ttcagttttt ttgactgtag ttttccttaa gggttttctt aaagcaatga ctatttatta 420
tgtttctcta tgttctaaaa cttagtgac tgttgtctac cttatgctta ctgtatgtga 480
caacttttca gggaaacctc gag 503

```

<210> 294

<211> 264

<212> DNA

<213> Homo sapiens

<400> 294

```

gaattcggcc aaagaggcct acttgctttg tgtatctcat ttaatttgtt ataaggtagt 60
actgatttta gcatattaat gcgatttctt ccttgctgtt tgccttggtc tgtgttcaat 120
ccagagagct taaattgtca ttattctggg aagaaaacct gtatttttgt tagtttaca 180
tattatgaaa tttcacttca ggagaaactg ctgggcttcc tgtggctttg ttttcttagt 240
tactttttcc gtgctgcct cgag 264

```

<210> 295

<211> 218

<212> DNA

<213> Homo sapiens

<400> 295

```

gaattcggcc aaagaggcct aaaagttaaa aataggcttt ttaggaactc actctttaga 60
tatttacatc cagcttctca tgttaaatat ttgtccttaa agggtttgag atgtacatct 120
ttcatttcgt atttctcata ggctatgcca tgtgcggaat tcaagttacc aatgtaacac 180
tggcagcg ggccagcaat ctccatgtgt acctcgag 218

```

<210> 296

<211> 243

<212> DNA

<213> Homo sapiens

<400> 296

```

gaattcggcc aaagaggcct agtagtaagc agtgtcctca atagcatcct ttaggtaaac 60
tctgagattc atttcattgg gctttttgtt ctattattat tatttctcag tattgtttta 120
tagcatcaca ccaaagtaca gttcagtaaa agcagtcctc acctgtctag cttgatagag 180
gtagattttt agagaatcca aggcaatgag taggtaatgt tcattcttca agcagttctc 240
gag 243

```

<210> 297

<211> 299

<212> DNA

<213> Homo sapiens

<400> 297

```

gaattcggcc aaagaggcct attttcttcc cetaaatgct tcatctccct accctctctg 60
cagtgaacct aatgtctctg atgactccca gggcctggcc gcgagggca gcctctctag 120
gtacagtgtc aatgtctcct gtctattggg gtctgtgctg ggaaactage tgttccctgt 180
ctcctctgtc tctctgtctt ctctgtctct tctcgcccg tcttaataac tattccatt 240
ccttgccctt tgtgttcat gaacatarga gcctggaagt caaagggtga gcactcgag 299

```

<210> 298

<211> 221

<212> DNA

<213> Homo sapiens

<400> 298

```

gaattcggcc aaagaggcct agggtaatag aaatgagata tgggttttggg attcctggat 60
tagccatcta ctgggctggc agccctcaca tggctggcct gccctgtctc gtgagatgga 120
tcagccttga ggtgacctgt caggaaagga catttgggct' ggaagtagca gaagcctctg 180
tgagccatcc ttcaggcaga actagtcagg agcagctcga g 221

```

<210> 299

<211> 247

<212> DNA

<213> Homo sapiens

<400> 299

```

gaattcggcc aaagaggcct aggaattaag gtcaaaactaa ttctcacatc cctctaaaag 60
taaaactactg ttaggaaacag cagtgttctc acagtgtggg gcagccgtcc ttctaatgaa 120
gacaatgata ttgacactgt cctctcttgg cagttgcatt agtaactttg aaaggatat 180
gactgagcgt agcatacagg ttaacctgca gaaacagtac ttaggtaatt gtaggcgag 240
cctcgag 247

```

<210> 300

<211> 269

<212> DNA

<213> Homo sapiens

<400> 300

```

gaattcggcc aaagaggcct aatgtaatga tgattggaaa aatgatgata gacatgatgt 60
actttgtcat cattatgctg gtggttctga tgagctttgg ggtcgccagg caagccatcc 120
tttttcccaa tgaggagcca tcatggaaac tggccaagaa catcttctac atgccctatt 180
ggatgattta tggggaagtg tttgcggacc agatagaccg taagcaagtt tatgattctc 240
atacaccaaa gtcagctccc ttgctcgag 269

```

<210> 301

<211> 159

<212> DNA

<213> Homo sapiens

<400> 301

```

gaattcggcc aaagaggcct agtcgtccct tctgtttact cctttttttg atatattatt 60
ttcttgctcc tatctgtatt taatagactt tcttttttcc atttctctc tctactgatt 120
tgaggatatga atactctgtt tetatttggt atcctcgag 159

```

<210> 302

<211> 154

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (109)..(110)

<220>

<221> unsure

<222> (127)

<400> 302

```

gaattcggcc aaagaggcct agtgggggtga acggcagctt gaagaaatga ctgttctctt 60

```

tctgaaattc ataattctat ttcctgtgac cccaacccgc aaagggtcnn tttttttgga 120
aagccctnaaa aaaaaaaaaa caccacgct cgag 154

<210> 303

<211> 210

<212> DNA

<213> Homo sapiens

<400> 303

gaattcggcc aaagaggcct aatttaagaa cattgaaatt acatcaagta ctctctcaga 60
ctacagtggg ataaaaattgc aaatcaactc ctaaaggcat ccccaaacca taaaaatata 120
tgcaaatata ataacttgct cctgaatgat cattgagtca acaaggaaat caagatggaa 180
attaaaaant tatttaaaact gagtctcgag 210

<210> 304

<211> 439

<212> DNA

<213> Homo sapiens

<400> 304

gaattcggcc aaagaggcct aggggatgtt tgggaagagca gaaatattag ttggttttta 60
atatgtacct tgtttgtact taaaaatagg aaggatgacc tctgttatgt aatggcagaa 120
tgcttagcaa aattttttcc tgcaagtatg tagaaaacac agctttcagt ccataaactt 180
gtatatatag ttaaggagat tgcaagcaa agtgctaaag gtgccaggag cctatagtaa 240
actgccagag tatttaggct attcaagag attaggagtt gctcgtata tctctcatt 300
caagccagag ggcctctagg aagaggaaca aaaaatgaag aagagggtat gataaaaaga 360
tttatggata tgacttttgt ctaatcgagc aaaaatctat agatggaaat ctatacgtaa 420
ggccacaaa gtcctcgag 439

<210> 305

<211> 564

<212> DNA

<213> Homo sapiens

<400> 305

gaattcggcc aaagaggcct atcgagagac tgcagctcga caggaatgct acccagaact 60
gaagcctgtg cagtccatca acgcccaccc ttccaactgc atctgtatca agtttgaccc 120
catggggaag tactttgcca caggaagtgc agatgctttg gtcagcctct gggatgtgga 180
tgagttagtg tgtgttcggt gcttttccag gctggattgg cctgtaagaa cctcagttt 240
cagccatgat gggaaaatgc tggcgtcagc atcggaagat ctttttattg acattgctga 300
agtggagaca ggggacaaac tatgggaggt acagtgtgag tctccgacct tcacagtggc 360
gtggcacccc aaaaggcctc tgcctggcatt tgcctgtgat gacaaagacg gcaaatatga 420
cagcagccgg gaagccggaa ctgtgaagct gtttgggctt cctaattgatt cttgagagga 480
ggtttagagg agaggaggcc ccggcagagg tcttcttcca tgtggtagt ttggtctgtt 540
ctctcggagt ggggtggcct cgag 564

<210> 306

<211> 258

<212> DNA

<213> Homo sapiens

<400> 306

gaattcggcc aaagaggcct acttgaacag tcaagaacaa attaaagttt ccacggcaaa 60
tttgttttca aaatgccgaa ttgcgaaca attgctggct tcacgtttct gaatacctt 120
aatagtttct ctgcgttgca gtttgtaagt ttcttgctca tgacacagtc gataaataaa 180
gaaacccagg tgatcaatgt tttcaatgag atcagtaata accatgtgct catgaatcag 240
ataggactga ggctcgag 258

<210> 307

<211> 352

<212> DNA

<213> Homo sapiens

<400> 307

```

gaattcggcc aaagaggcct aggggaaggtt ggttccccgt ctgtctccct gccctctctt 60
cctctacggg tccctctgct ccacaggggt agaacatcaa tctgtgcgag gaaggccagg 120
cggagggtgt acccactgcc ttgcactggc cttctcccta gagggccggg aggcagggaag 180
agccatttcc tgtggggcca cagcactggg cacagttaaa agtagcaggg cccagatatg 240
ccttgggact ccagtgtgag cctcgtcctt gtttccagct ggaaggaagg caccctcttg 300
cccaagacag gacactttgc tgcctggggc cagcacctgc tgaatcctcg ag 352

```

<210> 308

<211> 405

<212> DNA

<213> Homo sapiens

<400> 308

```

gaattcggcc aaagaggcct actcaggtca gggaggaggc aggggagtggt ggtctcccag 60
acccaacggt gagctcagag caagcttcac gcaggacgct ccgaaacact gtgtggaggg 120
ggctgtgttg tgggcacett ggggcctgat tctcttctt ccgaacgggc tecttgatgg 180
cctggccaca ggggcagctc cccattgggt gttaggacca gagtgtgaag aagaagtga 240
atataaatat gtatacatat ataatatat ttttaattac atgtcgtgtc acggtggctc 300
cagacatact gtttgcctag tttattccac tgcttgaaag cgcttcctag ccaatctgaa 360
caacaacact ttaagctgtt tttctaaatg caggtgctac tcgag 405

```

<210> 309

<211> 207

<212> DNA

<213> Homo sapiens

<400> 309

```

gaattcggcc aaagaggcct aattggagga cagccccctgg ggtttgatga gtgtggcatc 60
gtggcccaaga tctcagagcc cttggtgct gcagacatcc cagcctacta catcagtact 120
ttcaagtttg atcatgcact tgtccccgaa gagaacatca atggtgtcat cagtgccttg 180
aaggtcagcc aagcaaagaa gctcgag 207

```

<210> 310

<211> 252

<212> DNA

<213> Homo sapiens

<400> 310

```

gaattcggcc aaagaggcct attctggaac actatagtaa aggtatttcc tacttggctg 60
gcgcccacac tgataacttt ttctggcttt ctgctggctg tattcaattt tctgctaatt 120
gcatactttg atcctgactt ttatgectca gcaccaggtc acaagcacgt gcctgactgg 180
gtttggattg tagtgggcat cctcaacttc gtagcctaca cgctagatgg tgtggacgga 240
tgcaaaactcg ag 252

```

<210> 311

<211> 227

<212> DNA

<213> Homo sapiens

<400> 311

```

gaattcggcc aaagaggcct agtgatttac cattttatcc aaaaaaacta gaagaagagg 60
acagaaatct agttgtcttc aggtccatt tgattgaggt gttattcett tgtctttgaa 120
ttatatttta ggttaggcgg aatggaaact ttatttggat tgcacatctg attatattgt 180
gaacatcaac cttgggtata ggaaatttca ttatgaggct actcgag 227

```

<210> 312

<211> 188

<212> DNA

<213> Homo sapiens

<400> 312

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gaattcggcc aaagaggcct ataaaccgtc gattgaattc tagaactgcg ctccagcctg 60
gacaatagag ggagactgtg tctcaaaaaa aaaaaaaaaa aatctgtatg gaggaggtct 120
tacaatattt agtaaccaca ctttttgttt tttttcttca acttttcagt tttggggcaa 180
cactcgag                                         188

```

<210> 313

<211> 412

<212> DNA

<213> Homo sapiens

<400> 313

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gaattcggcc aaagaggcct agagcaaaat tactgagttg ctctttatcc tttcgttgac 60
tgtcagacct acatttttcc tcagattgca ttatttgatg cttacattgc attttttttt 120
tcttttgaga tggagttttg ctcttttttc ccaggctgga gtgcaatggc gtgatcttgg 180
ctcactgcaa actcgcctc ccggtgtcaa gcgattctcc tgcctcagcc tcccaagtgg 240
ctgygattac aggtgtgcac caccatgccc agctaatttt gtatttttag tagaaatggg 300
gtttccgggt gttggtcagg ctggtcttaa actcctgacc tcatgtgac caccgcctc 360
tgtctcccaa agtgctggga ttacaggcgt gagccacgac tctaggctcg ag 412

```

<210> 314

<211> 230

<212> DNA

<213> Homo sapiens

<400> 314

```

gaattcggcc aaagaggcct agattaaatt agttaccagt aaataataag tttgttttgt 60
gaatgcatac gtttattgtg tgttatttta tttatttatt ttctgcaggg gacaggctct 120
taagtgtaca ctgggtggcc gcccgccaac tccgagtggc tccctcccc acacaaatgt 180
ttattgtatc tttccctcc agtaatgtgt taccaggtgc ttccctcgag 230

```

<210> 315

<211> 259

<212> DNA

<213> Homo sapiens

<400> 315

```

gaattcggcc aaagaggcct aagctttttac agtggactct ggtattttat agttctccac 60
tggcagctga aatacgtgcc acagtctcaa tcggcaggca ggacaactta ggacataatt 120
tattaaaaag cagattcttt tattagatta aatagtaaac aaatgattc aaataatggg 180
ttatttacat ttctgcatcc ttggagtaaa cacctacttg aagcataaag ctagagaaga 240
aatcaaaacg tctctcgag                                         259

```

<210> 316

<211> 217

<212> DNA

<213> Homo sapiens

<400> 316

```

gaattcggcc aaagaggcct agtgacatca tatgagtttt cccaaaagtt tctcctaatt 60
ttgcctccta catatctctt ccctgatgtc cagaataatt tacggtctct tcccctcgg 120
gtgtgtgtgt gtttgtttgt ttgttttttg tgactgcgag gaggggagtg gacccctcaa 180
ccatgtgcgt gccccactg ctgccatccc actcgag                                         217

```

<210> 317

<211> 251

<212> DNA

<213> Homo sapiens

<400> 317

```
gaattcggcc aaagaggcct accatcatca tctttgccac tgtcatgttt tatgctgaga 60
agggcacaaa caagaccaac ttacaagca tccctgcggc cttctgggtat accattgtca 120
ccatgaccac gcttggctac ggagacatgg tgcccagcac cattgctggc aagattttcg 180
ggtccatctg ctcaactcagt ggcgctcttg tcattgccct gcctgtgcca gtcattgcat 240
ccaacctcga g                                     251
```

<210> 318

<211> 239

<212> DNA

<213> Homo sapiens

<400> 318

```
gaattcggcc aaagaggcct atggatatgg tattttatat ttgtttctg tcttgaatt 60
atagaaaaata aaacgatata aaggcatttt atggtgtttg ttgtagctt attatattac 120
attgaaaagg aatcaaactg ctctcttgca ttctaacttc aatatttacc taaatgtttt 180
ttgtgtctgt ccctttattt ctgtttactc tggatatctg ctgctgtccc ccgctcgag 239
```

<210> 319

<211> 233

<212> DNA

<213> Homo sapiens

<400> 319

```
gaattcggcc aaagaggcct atcgaaaacc tgcacccttg cgtgtcctcc tagaccacaa 60
agaggcccaa gaaaaatcgg atttagtgtc cttactgat gcattatcga aaacctgtta 120
gagtcctaag cgttctcctg ttagtattgg gaccttacca ctgtcctata aatatgttat 180
gccccaaaaa tgaagtggag ggccataccc tgaggaggag aagggatctc gag 233
```

<210> 320

<211> 307

<212> DNA

<213> Homo sapiens

<400> 320

```
gaattcggcc ttcattggcct agctgccctt ctctagtctt gttggccctt ctctaattgtg 60
tctctctctt ttaggtctgt ctgcacacag atgtgcttct tgcctatgaa tttaggagaa 120
ctacatccat aaattacatc acaccttctc tgcctacatg caattttcct agacttcaaa 180
attttacaaa ccagagagat caagatgcac aggettccac tcgatgtccc ttgctgtatt 240
ctgaggctaa aaagactaac actgatttag tggctgtctg caaggtaaaa gcattgcttt 300
gatcgag                                     307
```

<210> 321

<211> 353

<212> DNA

<213> Homo sapiens

<400> 321

```
gaattcggcc aaagaggcct aattaaagaa ggagaagcaa gctgatttca gagaggttgt 60
tcttcagaaa aaaaatggtt atttctttga actcatgcct gagctttatt tgtttattgt 120
tatgccactg gattgggaca gcatcacctc tgaatcttga agaccctaata gtgtgttagcc 180
actgggaaag ctactcagtg actgtgcaag agtcataccc acatcccttt gatcaaattt 240
actacacgag ctgcaactgac attctaaact ggtttaaatg cacgcggcac agagtcagct 300
atcggacagc ctatcgacat ggggagaaga ctatgtatag gcgcaatctc gag 353
```

<210> 322

<211> 213

<212> DNA

<213> Homo sapiens

<400> 322

gaattcgcca aagaggccta gaaaagagag tccttaatgg aatgggtgaa ttcattgctc 60
ctactacttt gtttgatat atatcctcat agtcatcaag taaatgattt ttcttcactg 120
cttaccatgg acctgggacg ggtagatata tttaatgaat ccagattttc tgttgatac 180
acacctgtca ccaacacgac ccaacttctc gag 213

<210> 323

<211> 182

<212> DNA

<213> Homo sapiens

<400> 323

gaattcggcc aaagaggcct aattgaattc catatatgac tggcggacgg gtcattgagga 60
tgctggcagt aatactcttg gtagtggttt gggtttctcat tggctggact tcattctgtg 120
gccagaattt ggagaaacag atttcaactta ttggccaggg gaaaacaccc gatcacctcg 180
ag 182

<210> 324

<211> 263

<212> DNA

<213> Homo sapiens

<400> 324

gaattcggcc aaagaggcct aggcagcagg tgtggccagt cctctgccca aggcctgtgc 60
cagaggggtt ggccagtttg agcctgggtc agcctcagca gcctatcccc atgtctctta 120
tgccctaat ttgcttcttc atcttggagg gtttggggag aagtggcgt gccaccccca 180
caaccctga ggaggtgtag acccagctcg agagccgcaa gcactgaggc agggcctgag 240
actggacctg ggtgtcgtc gag 263

<210> 325

<211> 230

<212> DNA

<213> Homo sapiens

<400> 325

gaattcggcc aaagaggcct aggcgtgtaag tgtaaaatac acaccagatt tcaaagaata 60
aatatatgct aaaacaatag tttggatatt aaataccttt ggccctttgca acatttgaat 120
tccaacaacg gatgaacttt atataccatt tgatgaatat catctatttg gataatatcc 180
ttagtattta cagatttaat attccaagtg ttaatgtacc acccctcgag 230

<210> 326

<211> 206

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (71)

<400> 326

gaattcggcc aaagaggcct agaattgtcac agcatcttga cacaattttg cctatgcctt 60
tgatttttgt ngttgttgtt gttttttatt ttttgagacc agagtcttgc tctgtcaacc 120
caggctggag tgcagtggcg cgatctttgce tcaactgcaga ttctgcctcc caggttcaag 180
cgattcatgt gectcagcct ctcgag 206

<210> 327

<211> 338

<212> DNA

<213> Homo sapiens

<400> 327

```
gaattcggcc aaagaggcct agtggtgagg agcctttaa ctagagccca cgcttacctg 60
tgaagctgtg acgtctccta atgtggctgc tttgcgtatt caacttagga catttggttt 120
tactgtttaa ccacggtttt gtttgttget tacagtttga caacttaaat gctgcgcag 180
aaacctctaa gttggaaatt gaagctagcc actcagagaa acttgaattg ctaaagaagg 240
cctatgaagc ctccctttca gaaattaaga aaggccatga aatagaaaag aaatcgcttg 300
aagatttact ttctgagaag caggaatggc atctcgag 338
```

<210> 328

<211> 200

<212> DNA

<213> Homo sapiens

<400> 328

```
gaattcggcc aaagaggcct aatcaaagtt gaccgaaaga ttttgaaaat ccttaccagt 60
tggttgcctat atgttaaagt cttatggtta attttattta ttttatcttg ttctcttgct 120
ggttattggc agactcagtc tttctgtttt cacaagaac tcatgaagag gacgataggg 180
aaaccacagt gtcactcgag 200
```

<210> 329

<211> 259

<212> DNA

<213> Homo sapiens

<400> 329

```
gaattcggcc aaagaggcct aattaattca aagacctgta ctaacattct gaaatatctg 60
ctagccgtaa taaaaaaatt aatgtacttt atgttcttag ctcccacaat ttagecctaa 120
tatttgcctt agcatgctta tactgaatcc aagcaaacat tgctatagcc gttcctcttc 180
tttattttaa agcgttttta ctttctctag cactctgcaa gttacttctt ctttctcttg 240
ttctcctcta cctctcgag 259
```

<210> 330

<211> 248

<212> DNA

<213> Homo sapiens

<400> 330

```
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cccaaaatat 60
atctgggtacc caatttcata ggttccattt tctaaacatt attttataag ctcttatctt 120
tgacgtcatt gcttttactt taggccatca acatttcctt ctgcactatt gttactgccc 180
tgccttatag ctttgagaat ctctctcatt ccaagtggaa ccccatgttt tttagaaatt 240
tgctcgag 248
```

<210> 331

<211> 137

<212> DNA

<213> Homo sapiens

<400> 331

```
gaattcggcc aaagaggcct aatttagggc cgttttcagt cttgatacca cagagaatgt 60
tgcatttgat aacctacata tggtgtttca tgtgtatagc tgtatgtagc gggtcagtac 120
gtgatgcgga actcgag 137
```

<210> 332

<211> 213

<212> DNA

<213> Homo sapiens

<400> 332

gaattcggcc aaagaggcct actgttaaat tatectctat taaacatttt tccacttatg 60
 gtttcttttc taacttcagc tgccccagcc aagtgccact cttcccttgg tactttgttc 120
 cttttagaag tatcttttgg gtgtgtgtgt gtgtgtgtgt gtgtgtgtca 180
 tatgcaaatg acaaggcaaa atggcaactc gag 213

<210> 333

<211> 266

<212> DNA

<213> Homo sapiens

<400> 333

gaattcggcc aaagaggcct agaactctgac ctgccagttt tgtttttaga agaacagaat 60
 ttagtggatc agtttttttc aggatgcagt atcttttggg gatcactctt tttcttcatt 120
 tacaggctcc aatggctttg ttttaacccg caacttttgg aatcgttggg cagaaaatga 180
 cgacttttga gcacagatct cagggcgatc ctgaggatcc tcacgatgaa cattacctgc 240
 tggccacaca gagctgtgtt ctcgag 266

<210> 334

<211> 215

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (115)

<220>

<221> unsure

<222> (150)

<400> 334

gaattcggcc aaagaggcct atgagtaaca ggtactgtat gtttagcatt ttgaggaacc 60
 accaaactct tctccaaagc agtgggtacca ttttacattc ccaccatcag tgcangtggg 120
 ttctgattct ctatatcctt gccagccctn gttattctac tgggtgtgaa gtgggtatctc 180
 aggtggtttt ggtttgcatt tccccccccc tcgag 215

<210> 335

<211> 384

<212> DNA

<213> Homo sapiens

<400> 335

gaattcggcc aaagaggcct aggcagacca actggcccaa aacagagctc cttttcttct 60
 ttgttctgcc tggactgggt ctttaacctt ttctctatc tctttctctt cttgatgtta 120
 aatgttactt tgtcatggaa tgtttaacct gtaacattta tatattgatt aattatacta 180
 ttatgtatgg tttacaatat tgactggctt gcgtgcccac agctctgact actgagtga 240
 caggaagtac tgttagctgt ggaaggtata cagatcatca gcagtaaact catacaggcc 300
 tgaagcaacc tcaattcttg cctcctcaga agaaagaatt ccaactgagg gcataaggca 360
 gaaggagaaa ccgcggtatc cgag 384

<210> 336

<211> 207

<212> DNA

<213> Homo sapiens

<400> 336

gaattcggcg ccgcgtcgac tcattctctt cccctttttt acctcatgcc aggtcccaag 60
 aagaatcacc acctttggca gaaaatgatg gtaattttta ttttatttta tttatatttt 120
 tttgagacaa gatctcgctc tgtcaccacg gctggagtgc agtggcgtga tcacggtgca 180

ctgcgccctc aacctcttgg gctcgag

207

<210> 337

<211> 167

<212> DNA

<213> Homo sapiens

<400> 337

gaattcggcc aaagaggcct acaggaacat ctactgggga tgactgttag gcagctctgtg 60
 atgatgtttt ttataaaaacc taagtaactt ggggagacag agcatttcaa acccatatag 120
 acacctatca tacctgtata tcccctaata catggcgcaa actcgag 167

<210> 338

<211> 153

<212> DNA

<213> Homo sapiens

<400> 338

gaattcggcc aaagaggcct actcaggact ctctcaatga aactgttttt aaatttttct 60
 ggtagatgct tgcagagcag agagtgggat ttctgtgttt tctatggctt ctttctgtgt 120
 gtctctgtat gtgagttcat accgcaactc gag 153

<210> 339

<211> 184

<212> DNA

<213> Homo sapiens

<400> 339

gaattcggcc aaagaggcct agccaaagaa catctgaggt aggtaacacc tgcattgtgaa 60
 aaactgtgat atgaatttta ttataaaaa agtcataact aaaacccttc tagaccacaa 120
 agttactgtg tgtttgttaa taatcttcat agtactattg gaatgtcaa tcagtcaact 180
 cgag 184

<210> 340

<211> 226

<212> DNA

<213> Homo sapiens

<400> 340

gaattcggcc aaagaggcct agtcttctag aagttttata gttttagggt tttacattta 60
 gtttcttcca ttcttgaggt aatttttgca tatggtacag ggtagggatc aaagtctgtt 120
 ttttggccta tggatgttaa attgtttttg catgactttt tgcaagacc atcctttctc 180
 cactgaattg tctttgtact tcaaaaatca gttgtccaca ctcgag 226

<210> 341

<211> 231

<212> DNA

<213> Homo sapiens

<400> 341

gaattcggcc aaagaggcct aattttgtat ttgaagatta tttatatcag gtattacttt 60
 gtttttcccg ggatacatct gtgttgagtc actttgcatt caacagtgc tcgccaccaa 120
 aatcatacat aagaggaaaa ctaggactgg aagaatatgc tgtcttttac ccaccaaatg 180
 gtgttatccc ttttcattga ttttcaatgt atgttgacc acgagctcga g 231

<210> 342

<211> 152

<212> DNA

<213> Homo sapiens

<400> 342
 gaattcggcc aaagaggcct aggaaaagat aaaagaaaac tcttgagatt tttgagtgtt 60
 gttgggtgtt gttttctccg ttcagtttct ttctttttat aacttggatt atgaaactaa 120
 actttaaccc aaaattaacc ctgttactcg ag 152

<210> 343
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 343
 gaattcggcc aaagaggcct acctgcccac aaccaactct aataaatttt ataacattac 60
 tagtacgcac agatatatat gaataactaa aaaagtttaa ggaagtata tttaccctta 120
 ctacatatga cacgtgatga tattgctatt ctattttact cttttttatt ttttcagact 180
 cgggtctcact atgttgccca gactggagtg cagtggctat tcccaggtag tcgag 235

<210> 344
 <211> 156
 <212> DNA
 <213> Homo sapiens

<400> 344
 gaattcggcc aaagaggcct attggaaacg ttttggaaact agatcgtggt gatggctgca 60
 cgacattgtg agtataccaa acacctatgg attttaaact ttatttattt atttatttat 120
 ttatttattt atttatttat gacaaagagt ctcgag 156

<210> 345
 <211> 241
 <212> DNA
 <213> Homo sapiens

<400> 345
 gaattcggcc aaagaggcct agggcacact ctttgetttg cttgcaattc cacactccca 60
 cccatcataa catatttcgg aaaccttatt ccaattggtc cttcaagctc aaatgtcaac 120
 tctacttcct cagaagaagg gtatatttta catattcctt agtgttctag aagtctctca 180
 ttcacaccat cctgactgca ctgaaccac catggtatta tcagcaccag gcaatctcga 240
 g 241

<210> 346
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 346
 gaattcggcc aaagaggcct agtcgggtgt ggtgggtcac ttgtgtaac ccagcagttt 60
 gggaggccga ggcagggtga tcacttgagc tcaggagtgc aaaaccagcc tgagcaacat 120
 ggtaaaaccc tatctctaca aaaagtacaa aaattagcca ggtgtgattg catgcacctg 180
 caatcccagc tactcaggaa gctgaggag gagaatctct tgaaccacag aggtggagac 240
 cagcctgagc cacatagtga aaccccatct ctacaaaaaa tttaaaaatt agctgtgtgc 300
 ggtcacgcgc acctgtagtc ccagatattg gagggcagtg ggggtggcg ctgaggtggg 360
 aggatcactc gag 373

<210> 347
 <211> 239
 <212> DNA
 <213> Homo sapiens

<400> 347
 gaattcggcc aaagaggcct acgagcatga gtggggattt gtctctcatt cctgggctg 60
 gaagtacctt cctcctggct ctctgtgagg cccccctctt ttctctgttg tctgtttct 120

accagctcct gcttctccca tggggacttc tctgtcacct ggaatccctc tccccgacc 180
ccagctgact ctgagctctg ctaactctgt ccacccctgc caggcccttt ccactcgag 239

<210> 348
<211> 192
<212> DNA
<213> Homo sapiens

<400> 348
gaattcggcc aaagaggcct acgagagggg gggagaaagg aaattaaaaa ctgtgaacag 60
aataacgacg gttacttaaa aaatatgatg gtctctacca tgtagtaca ttttttgatt 120
caggtaacgg ttagtagaat gaaacattcc atgaatgaca tgtagttat taagcatgtt 180
agaaacctcg ag 192

<210> 349
<211> 279
<212> DNA
<213> Homo sapiens

<400> 349
gaattcggcc aaagaggcct aggcctagtgg tggctcggcc cttcttttag tgggggatgt 60
attagcttca aaatcttcaa cagtgccttt ccttcctggc gactcttctc cagggtgctc 120
catgactact ccactccctc catctaggat gtgccttaaa gctgggtcct caggggaaca 180
gacggtgggt ccactctcac tgctgcttag gtctaaatct tctaagtaaa ggatccttggg 240
ctgatgcagt cttttgatga atgttttctc cctctcgag 279

<210> 350
<211> 245
<212> DNA
<213> Homo sapiens

<400> 350
gaattcggcc aaagaggcct acaacatgta aaattagagg agaaatttag gtttagatta 60
attgcatgag aaataaaatt agaggacaaa tgtagtatac ttattttggt aatataaaat 120
taattaaaat tatattacta tcaacatctt atactatact ttttttttat ttcatgtga 180
gcctctcaac aacctgtaag gcaggcaggg aagggtgaac tagtattact gcacatcccc 240
tcgag 245

<210> 351
<211> 263
<212> DNA
<213> Homo sapiens

<400> 351
gaattcggcc aaagaggcct agtacgttaa ggtgggtggc cgctggccac taaattgttg 60
tagcaccact tgggaaaaga aaagatggat tttctgtcct taagcctctg gaaactacct 120
ttagccttta gagaattgtg agagaaacat gtttgaatat gaaottgtga gttcctatgg 180
agaaaaaagg tcaatgtaaa atctagcacc aggatataat tattagagat atgaattgta 240
ctttcctaca ggagaacctc gag 263

<210> 352
<211> 251
<212> DNA
<213> Homo sapiens

<400> 352
gaattcggcc aaagaggcct accggaagtg tggcttcgtt tacagttcgg cacgtaggac 60
ggagggtagt gcgtctagag acacatactc ccaacggatt tgacgatggg gttcgggtctt 120
gaatggaaat gtagtcttag gccagctcta ggtttttgaa caggatagta gctatccgga 180
gtcgattgag ggccagagca ggcactgggg ctccggatcct gggcaagtt tcccacgttg 240

aggggtctcga g

251

<210> 353

<211> 302

<212> DNA

<213> Homo sapiens

<400> 353

gaattcggcc aaagaggcct actctgtttc aggaagaggt gtcactcttt gcaaaggcaa 60
 actctctctt atctgggttac tcttctccca actcttaaat gtatttcttg ccaggttcta 120
 ttttagagct tttctctgtt ggagcagcag ccactttttt tgaggcccat ttaaacctct 180
 ctccagtcct tttaggggac ttcagtagtt ctttgttgag catgcacccc acatgggtgc 240
 cactgccagg cactggggat gcagagacaa agagtctcca ctcaccacc acagcactcg 300
 ag 302

<210> 354

<211> 207

<212> DNA

<213> Homo sapiens

<400> 354

gaattcggcc aaagaggcct actttttcta attgatttgt ctttttctat atagtctaga 60
 taccaatcct ttgttatgct agctgcaaaa cctctcagac tgttttctt tttttcttg 120
 tttatgcagt cttgtatatt gtcattttct tgctgtatgt tttctctgt taggaaatca 180
 tcttcacccc aagttcatat actcgag 207

<210> 355

<211> 175

<212> DNA

<213> Homo sapiens

<400> 355

gaattcggcc aaagaggcct acagtttttt tatgtttatt cctaagtatt tcttaactta 60
 agatctctag caaatggaag tgttttttaa ttttcgttta aattttttat tgtttatgga 120
 aattcaatta atttttggtg ctgctatctg attgtgcaaa tccactgaac tcgag 175

<210> 356

<211> 326

<212> DNA

<213> Homo sapiens

<400> 356

gaattcggcc aaagaggcct actttaactg ggcaggcgcg tgctctgata aaacatggga 60
 attttaatac taaaggaaga aagggagagc gaatattctg ggacaacaag cagactctgc 120
 cacaggcaat gaccacccta accctgggga agatgcagat gccctccca tcatctaatt 180
 aattcaccat ttattgagca tggactttgc gccagatatt gtgcacaaca cacaggttct 240
 tcttttaggc ctctcctta cagtctagaa ggggcagaca gactgatgaa caccagggt 300
 gctcagggtt cctggggctg ctcgag 326

<210> 357

<211> 462

<212> DNA

<213> Homo sapiens

<400> 357

gaattcggcc aaagaggcct aataaaatat atgaagctcc ttttttact ttgctctgtg 60
 accggtttaa aggttaagttt gttatgttct tggtagattt tgccaggctt ctcccaacag 120
 agtagaagtg atttggcctc ataacttcac agtggtttac cactttgttc tatgttctgg 180
 ttttgtaaag gatagtactg gaatttgctg ctgaagacca atattggtgt aactcctgtc 240
 agtatattgg taaaatgtag cagaggcagg agtttggatg tttggatggg attcccttag 300

gattctacag ccaataaaga tcctatttcc tatgcatgtc ccaggaatca gtaatcctct 360
 tttactctgt tgggatgagt ctttttttgc ttctgttcag agtgggtact aacttcacct 420
 tctttcctca aaccgtcgat tgaattctag acctgcctcg ag 462

<210> 358
 <211> 220
 <212> DNA
 <213> Homo sapiens

<400> 358
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 tgagacaggg tcttgctctg ttcaccaggc tggattgcag tgtccaccgt cttggctccc 180
 tgcaacctcc acctcttggg ctgaagcgat cccctcag 220

<210> 359
 <211> 221
 <212> DNA
 <213> Homo sapiens

<400> 359
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 aaaaagaat gagacctct catatactgc tggtaggaat atatggtaca gatatttga 120
 ataacaattt gttactaccc aataatgtca aaatatgtta caccgcccag caatccact 180
 cctacctaca tgcctttaa actctcacac atggactcga g 221

<210> 360
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 360
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 agccacactc cagctaata attattgttg ttcattttac agcatctcag atataaaaaa 120
 tttggttgca tctacatgt ctttttttcc tatctgttgc ctctgtccc ttcctctgat 180
 tctgtgtgc cccctactt ttattttagg ttcagaactc gag 223

<210> 361
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 361
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 cagtatttg tacttagtag ctcatctcat tttcatgata cctccataag gaaggtatat 120
 tattgtttac attttacagg tgcagaaact gagcacaggt gcacaacatt cccaagctca 180
 cacagctaat aagtagagga acatgaagta caaggcctgg ctcgag 226

<210> 362
 <211> 457
 <212> DNA
 <213> Homo sapiens

<400> 362
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 atgcattaaa acagtgggtc ccaacctttt tggcactagg aaccagtttt gtggaagaca 180
 gttttttcat ggacctgggg tgggatgagg tggtaggagg ttttaggatg attcaactgc 240
 attacattta tctgtcactt tatttctgtt attattacat tctaataat aatgaaataa 300
 ctatactgct cgccataatg tagaatcact gggaaacctg agcttgtttt tctgaaacta 360

catgggtccca tctggagggtg atgggagata gtgacagatc atcaggcatt agattctcat 420
aagaaacagg cagcctagat cctcccggc actcgag 457

<210> 363
<211> 356
<212> DNA
<213> Homo sapiens

<400> 363
gaattcggcc aaagaggcct actgtcttca caaaaataaa caaacaaca aataaaataa 60
ataatacctt ttattattta cctctgatct attcctatta cagttccgca ttcagtgtaa 120
tttcccctag gggtaactgc aatttcattt ttttaataa cccaacaaag agctgtagct 180
ccctcctgtc tgcagatcag tgtttatagg acagaatata atattctact atgctaactt 240
taccttttac ccttttctta gcacgtgcac acacatgtgt gcacatactg tcagagtccc 300
tatttctctc tctctacaca ctgccagtct ctctcccttg tcccgcgcag ctcgag 356

<210> 364
<211> 213
<212> DNA
<213> Homo sapiens

<400> 364
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ttaaaaaaat tcttttcaga ctctatatca caaatgtatg gttttcttgt tttgtttttt 120
gagacagtgc cactctcgcc caggctggag gcagtggcac aaactcagct caccgcaacc 180
tccacttccc gagttcaagc gattccccgc gag 213

<210> 365
<211> 280
<212> DNA
<213> Homo sapiens

<400> 365
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ctataagctg ggtgtaggca tttgggaact ggatgaagta atattttgct atgcagactt 120
tcacttaate catatttgta tttgttttat tttactttat ttttttgaga cagagtctcc 180
caggctgggg tgcagtggta gaatcacagc tcactacagc cttgacctgt ccggcacgag 240
tgatcctttc acctcggcct cccgagcagc gggactcgag 280

<210> 366
<211> 174
<212> DNA
<213> Homo sapiens

<400> 366
gctcagacte ttggaagggg ctataactaga cacacaaaga cagccccaag aaggacgggtg 60
gagtagtgtc ctgcctaaaa gacagtagat atgcaacgcc tcttgctcct gccctttctc 120
ctgctgggaa cagtttctgc tcttcatctg gagaatgatg ccccccttct cgag 174

<210> 367
<211> 532
<212> DNA
<213> Homo sapiens

<400> 367
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agtacaactg gtggagtctg ggggcggcgt ggtccaaact ggggggtccc tgagactctc 120
atgtgcaaca tctggattca cttcagtga tttcggcatg cactgggtcc gccaggcgcc 180
aggcagggga ctggagtggc tgtcttttat tgcctttgat tcaagtaatg aaaactatgc 240
agactccgtg cagggcgcgt ttgccgtctc cagagacaat ttcaaggaca cactgtatct 300

acaaatgaac agcctgactg ctgacgacac ggctgtctat tactgtgcga ctgggaagat 360
 agcagccgcg ggtaccccat ttgactattg gggccgggga accctggta cegtctcttc 420
 agcctccacc aaggggccat cggctctccc cctggcacc tccccaaga gcacctctg 480
 gggcacagcg gccctgggct gcctgggtaa ggactacttc cccgaactcg ag 532

<210> 368
 <211> 229
 <212> DNA
 <213> Homo sapiens

<400> 368
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 acagcagcag gccggggccg tggctcgtggc cggccccact gagaggcacc ccacccatca 120
 catggctggc tggctgctgg gtgcacttac cctccttggc ttgggtactt cattttacaa 180
 ggaaggggta gtaattggcc cactctcttc ctaccggagg ccactcgag 229

<210> 369
 <211> 350
 <212> DNA
 <213> Homo sapiens

<400> 369
 gagcaggagt acagttctga agataacttc ctttaaaaaa ggaaattcat aaaatatcat 60
 gcatcttcct tttttgacac taatggaaca atttaattga atttcagagg gaagcagagc 120
 ccctggaaag gctgggtgtga taagggaagg ttaccacagct ttccctgtcag gcggtgtgtg 180
 ggagcagaga gtggcattct ctgcatactc ttggggagaa gagggggtga gacaggctgc 240
 tcagggctgg ggcagagccc aggggaaggg gatggaaggg gaagaacagc cttcaagag 300
 tctgcagaa attgggtggaa gttattttaa cagaagtgtt cgggctcgag 350

<210> 370
 <211> 155
 <212> DNA
 <213> Homo sapiens

<400> 370
 ggacatagtc ccagcctggg ttgagagagc aaaaccctgt ctcaaaaaca aaacaaaact 60
 cttcttaaat atcaatttta ttgttttaga cagcgaggca ggtatttttt aacacatatg 120
 ccactgctat gttttatatt cgtaccatac tcgag 155

<210> 371
 <211> 228
 <212> DNA
 <213> Homo sapiens

<400> 371
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 aataaagcta ctttaaaaag cccgtttatt ttganaacc caacaggctt ctcaaaaactg 120
 ctgtcattcc taataacgaa gtcttaaaaa atccacatgt cctcctcagc cagaggccta 180
 tggacagcac aaaatacagg ggaatgtcgt ggtggcggct gcctcgag 228

<210> 372
 <211> 268
 <212> DNA
 <213> Homo sapiens

<400> 372
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 cagatgggtc ctgtcccagg tgcagctgca ggagtcgggc cggggactgg tgaagccttc 120
 ggagaccctg accctcact gcactgtctc tggtgattcc atcagtaatt cttattggag 180
 ctggatcagg ctgccccccg ggaagggaact ggaatacatt ggtatgtct tttacaacgg 240

ggacaccaat tccaaccct cctcgag

268

<210> 373

<211> 480

<212> DNA

<213> Mus musculus

<400> 373

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 ctcaccacat cacctggtga aacagtcaca ctcaactgtc gctcaagtac tggggctggt 180
 acaactagta actatgccaa ctgggtccaa gaaaaaccag atcatttatt cactggtcta 240
 ataggtggta ccaacaaccg agctccagggt gtccctgcc a gattctcagg ctccttgatt 300
 ggagacaagg ctgccctcac catcacaggg gcacagactg aggatgaggc aatatatttc 360
 tgtgtcttat ggtacagcaa ccttgggtg ttcggtggag gaaccaaact gactgtccta 420
 ggcagcccca agtcttcgcc atcagtcacc ctgtttccac ctctctctga agaggctcag 480

<210> 374

<211> 271

<212> DNA

<213> Mus musculus

<400> 374

gaattcggcc aaagaggcct actcaactgt tgccttaaaa tcttaatat tccatcactt 60
 ataattttctg acgtagatga gatttctgac caccaccttt ttattactgc ttgaagccag 120
 tttaaaccaa caattacata ttcttcaaat ctgctttgaa gtaaagactt taccagagga 180
 agtaagtcta cacagcagcc aagttagata tactgcttt ctctctgtaa actattggtt 240
 agaacaggaa ggcaatctac aacaactcga g 271

<210> 375

<211> 423

<212> DNA

<213> Mus musculus

<400> 375

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 cctcactttg atgtaagcca cggctctgcc caggtaagg gtcacggcaa gaaggctgcc 120
 gatgctctgg ccaatgctgc aggccacctc gatgacctgc ccggtgccct gtctgctctg 180
 agcgacctgc atgcccacaa gctgctgtg gatcccgta acttcaagct cctgagccac 240
 tgcctgctgg tgaccttggc tagccaccac cctgcegatt tcacccccgc ggtgcatgcc 300
 tctctggaca aattccttgc ctctgtgagc accgtgctga cctccaagta ccgttaagct 360
 gcctctgctg gggcttgctt tctggccatg ccttcttct ctcccttgca ccagtacctc 420
 gag 423

<210> 376

<211> 333

<212> DNA

<213> Mus musculus

<400> 376

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 ccgcgaccca gctgctgcca gcgttgccgc ggttcgaaaa ggagccgagc cctgcggggg 120
 cgccgcccga ggcctgtgg gcaagcggct acagcaggaa ctgatgatcc tcatgacatc 180
 tggtgacaaa ggaatctccg ccttccctga gtcagacaac ctgttcaagt ggggtggggc 240
 catccacgga gcagccggca ccgtatatga agacctgagg tacaactct ccttagagtt 300
 cccagcggc tacccttaca acgcggaactc gag 333

<210> 377

<211> 271

<212> DNA

<213> Mus musculus

<400> 377

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 ataatttctg acgtagatga gagttctgac caccaccttt ttattactgc ttgaagccag 120
 ttttaaacca caattacata ttcttcaa atgtctttgaa gtaaagactt taccagagga 180
 agtaagtcta cacagcagcc aagttagata tactgttttt ctctctgtaa actattgggt 240
 agaacaggaa ggcaatctac aacaactcga g 271

<210> 378

<211> 377

<212> DNA

<213> Mus musculus

<400> 378

gaattcggcc aaagaggcct agcggactgg agctgaaagt gttgattggg aaacttgggt 60
 gattcttctg tttatttaca atctcttga cccaggcagg acacatgcag gccaaaaaac 120
 gctatttcat cctgctctca gctggctctt gtctcgccct tttgttttat tttggaggcg 180
 tgcagtttag ggcacgcagg agccacagcc ggagagaaga gcacagtggg cggaaatggc 240
 tgcaccagcc cagtccggat catttctggc cccgcttccc ggacgctctg cgcctttct 300
 ttctctggga tcaattggaa aacgaggatt ccagcgtgca catttcccc cggcagaagc 360
 gagacgcgga tctcgag 377

<210> 379

<211> 390

<212> DNA

<213> Mus musculus

<400> 379

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 ttgctcaatg ttctctcctt ccgaccactt ccacttaaat aaagtcttta agtagctgaa 120
 ggattaacag tctgggtggga ggcaagccat tgaactgaac cacgaggaaa gtatatttcc 180
 ttcttttctt ttcttgccaa gttttcgggtg gcattttagt aagctgggtg gaaaggctag 240
 gaggcattgt tttctattat tctcgggtga agccttttcc cagagcatat gtctccggca 300
 ggcagtgtgg gttcttgcca agcatcagaa ccagctctca gggcctcccg acgccgatcc 360
 atagtactgt acagaccac cggactcgag 390

<210> 380

<211> 435

<212> DNA

<213> Mus musculus

<400> 380

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 cctgatcatt ttcaagaacc ataggactga ggtgaagcca tgaagtgcct gctgatctcc 120
 ctageccctat ggctgggcac agtgggcaca cgtgggacag agcccgaact cagcgagacc 180
 cagcgagga gccctacagg ggctctggag gattccaca aacaccacac tgtgcagttg 240
 gccttccaag agatcgggtg ggacagagct gaagaagtgc tcttctcagc tggcaccttt 300
 gtgaggttgg aatttaagct ccagcagacc aactgcccc aagaaggactg gaaaaagccg 360
 gagtgcacaa tcaaaccaaa cgggagaagg cggaaatgcc tggcctgcac taaaatggac 420
 cccaaggggc tcgag 435

<210> 381

<211> 321

<212> DNA

<213> Mus musculus

<400> 381

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 tgctgcacag aaactcgtcc gagagtgaag agaggctgaa gtaatagctc aagtagatac 120

atgccaacag tataaccaca aatgtcacca gccggcagcc aatgtatttc acgattaaat 180
 gactagagtt cttttttgtc ttcaagtact gctccacgat tgggtacttg aagtggcttt 240
 cagatatctc ccacagactc tgccccacat tctcagtcac tcctgggggt ccagggtccgt 300
 ctcttaggtc caaatctcga g 321

<210> 382

<211> 223

<212> DNA

<213> Homo sapiens

<400> 382

gaattcggcc aaagaggcct acgactacag acacagacgg tgccgcccag acttgtgtct 60
 cagtacagtg tcagaagcaa attaaagaac ttccagatca atgtttatct cttcagttat 120
 tacatctggg ccagcttgg ccattgtacaa catgttgatt ctttcaacg ttttattttc 180
 tttatttagc tttgttgcca aagcttcagc actttctctc gag 223

<210> 383

<211> 258

<212> DNA

<213> Homo sapiens

<400> 383

gaattcggcc aaagaggcct acagaaacat ctcaaggtag ctggtccgcc cccacttccc 60
 catctacctc ttgtccctcc cccaacacca ccaccacctt ggctccctc cctcatgacc 120
 gcttggatcc tctgctgtc cagcctgtca gctttctcca tcaactggcat atggactgtg 180
 tatgccatgg ctgtgatgaa ccaccatgta tgccctgtgg agaaatgggc ccacaacgag 240
 tccaagggtc tccctata 258

<210> 384

<211> 207

<212> DNA

<213> Homo sapiens

<400> 384

gaattcggcg ccgcgtcgac agtgaaatcc ggtgttatgt taatggacaa ctggtatctt 60
 atggtgatata ggcttggcat gttaacacaa atgatatgta tgacaagtgc tttcttggat 120
 catcagaaac tgctgatgca aatagggtat tctgtgggtca acttgggtgcc gctgatgtgt 180
 tcagtgaagc acccaaccca gctcgag 207

<210> 385

<211> 193

<212> DNA

<213> Homo sapiens

<400> 385

gaattcggcg ccgcgtcgac acaagatgtg gacagctctt gtgctcattt ggattttctc 60
 cttgtcctta tctgaaaagcc atgcggcatc caacgatcca cgcaactttg tccetaacaa 120
 aatgtggaag ggattagtca agaggaatgc atctgtggaa acagttgata ataaaacgtc 180
 tgaggatctc gag 193

<210> 386

<211> 212

<212> DNA

<213> Homo sapiens

<400> 386

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 gtgtccttct tttttttctt aagatattta tataacagat gataaattac agatatttat 120
 gtaacagatg cataataatc ctaatatcca tattgggtac tctttctctc tttccaaatt 180
 tgtttagctt tccaccacc cccagctcg ag 212

<210> 387
 <211> 227
 <212> DNA
 <213> Homo sapiens

<400> 387
 gaattcgcgg ccgcgtcgac gtgaaaggta gaagggcagg gcagagtatg tactgttttg 60
 tgtgtgtgtg ttattttttg agactaagtc ttgctctgtc acccaggctg gagcgggggtg 120
 gtgtgatctc ggctcactgc aacctctgcc tcccagggtc aagcaattct cctgcctcag 180
 tctctccctc agtagctggg attacaaacg cccaccaccc actcgag 227

<210> 388
 <211> 163
 <212> DNA
 <213> Homo sapiens

<400> 388
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 aagatttctg aaattgaaat attattcaat catcctgcaa tctaggataa gaatgataat 120
 tgctgttaca tcttataaac gatattcttg ggctacgctc gag 163

<210> 389
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 389
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 taatctgctc tcttccgtta tttttttagt ttctatgtat ttactttta ggacattcct 180
 tggactttgt tctacctctt taattgatga agaaaacetc gag 223

<210> 390
 <211> 185
 <212> DNA
 <213> Homo sapiens

<400> 390
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 aatttccagt ttataatata gtattattaa ttatagtcct tatgggtgtac attagatctt 120
 tagacttact cttcttatat atatgtaact ttacatcctt ggacctacat cteccctgcc 180
 tcgag 185

<210> 391
 <211> 221
 <212> DNA
 <213> Homo sapiens

<400> 391
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 ctttgctgtc taccttggtg ttaattggaga gtcactttgt agaaaaaaat atactgttcc 180
 tcatctttgc tgtctacett gttgttaatg gagagctcga g 221

<210> 392
 <211> 219
 <212> DNA
 <213> Homo sapiens

<400> 392

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 tcaagattca gctgaatctg taggtanatt tgagttgtat tgccatctta ataattttaa 120
 atcttccaat tcattgagcat ggaatgtttt ttcttttatt taggaattct ttattttttt 180
 ccaactgtgt tttgtagttt ttgtatgcag gttctcgag 219

<210> 393

<211> 155

<212> DNA

<213> Homo sapiens

<400> 393

gaattcgcg cgcgctcgac ggggtaagaa gctgccggct gaactaatac tgggttatta 60
 taattgtttt cttcagaact ctgtggctat tggccatct tctgacattg aactctgcta 120
 tgaagtccaa ggtaaacctc atcctcctgc tcgag 155

<210> 394

<211> 157

<212> DNA

<213> Homo sapiens

<400> 394

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 acagtttacc ctttatgata tgagctacag atattgtcct cagttgtgtt ttcttttgac 120
 tttgctaatt ttttattctt gccatgcaga gtcgag 157

<210> 395

<211> 231

<212> DNA

<213> Homo sapiens

<400> 395

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 tttaggttaa gtaaataaca tttttttaaa cccactattt tgagcgttca gtggtctgta 120
 acagtggtgt ataccataag aactggtagt aagtgggtta ctactagttt aataatagtt 180
 gaagcctggg cgtgggtggc cagcctgta atcccagcgg ggaggctcga g 231

<210> 396

<211> 183

<212> DNA

<213> Homo sapiens

<400> 396

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 ctctttcacc tgggtgtcgg ggtcaagct ttcccgcca gctcacttc ctttgccctt 120
 cctcctgcct ttctcaactg tccaaggag ggggcctcat tgtgtctccc gtgcacgctc 180
 gag 183

<210> 397

<211> 213

<212> DNA

<213> Homo sapiens

<400> 397

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 ttaatcacat aactgtaacc ttctgtctac tcagggtcaa ctaactttta gatgaaacct 120
 aaagaatgga tttttcattt ttactacat ttgactgtaa atacagacag cttgataata 180
 ataacatag ctgtggaatt cccaatctc gag 213

<210> 398

<211> 153

<212> DNA

<213> Homo sapiens

<400> 398

gaattcgcgg cgcgctcgac cctgtttttc tttcctcta atcaaatgag aagatgttgc 60
ttggtttatt tttttttctt tttcttagca aagaagtact ttgagtatgt cctagaacaa 120
tatttttcaa gatgctctcc ctggtcactc gag 153

<210> 399

<211> 288

<212> DNA

<213> Homo sapiens

<400> 399

gaattcgcgg cgcgctcgac tctaaaagca agattgatgt attttgtaat tctacagtgc 60
ttaacttcagt gttgatgaca gtaataagaa tagtatctat agaataacta gttttaaaagt 120
tttttactaa aaatttcattc tcaatttaaat aaotagagag ttacagtatt ttttttcage 180
atgtattttta gtttggtttta tcaccttaat ctccctaata gtcctgcaaa tgtagtactt 240
gttctaacca tactgggcatc ccacattata ttagcatatg ggctcgag 288

<210> 400

<211> 203

<212> DNA

<213> Homo sapiens

<400> 400

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ctaaaatatt taatttttta aacacttttc attttgttt ccattctcatt tcaatgcata 180
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<210> 401

<211> 193

<212> DNA

<213> Homo sapiens

<400> 401

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aaaccatcca ctctgtaggc aagtgttgt aggtgtcttc actttccaga tgaagtcact 120
gagaagacaa gaggttcaga cacttgccca acctctagta agtgacggag ctgagatcca 180
aacgctctc gag 193

<210> 402

<211> 284

<212> DNA

<213> Homo sapiens

<400> 402

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gtcactactaa taaatagcag agctgggatt tgaacccaga ccacggtcac caaactgtaa 180
agggtcfaat ggtcaatatt tttggctttg tagtccatgc agtctctgtc acagtgactc 240
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<210> 403

<211> 168

<212> DNA

<213> Homo sapiens

<400> 403

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atcttctaaa tctttatggt tatgatttgg aataaaatgt gcctaatacct gtgttacatt 120
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<210> 404

<211> 189

<212> DNA

<213> Homo sapiens

<400> 404

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atgtattttc tttttcttcc ttttttttgg agatggagtt ttgctctgtc gcacaggctg 180
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<210> 405

<211> 174

<212> DNA

<213> Homo sapiens

<400> 405

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<211> 234

<212> DNA

<213> Homo sapiens

<400> 406

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<211> 196

<212> DNA

<213> Homo sapiens

<400> 407

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gaaaatgaga ggcagggtga ggggtggatta ccaagaagcg tatgaaaatc ccaangaatt 180
aaaacaggag ctcgag 196

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<211> 232

<212> DNA

<213> Homo sapiens

<400> 408

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aaaagaatat agcaaaatac caaaaaagga aaaataagcc aataaccaag tcaaaatgag 180
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<211> 232

<212> DNA

<213> Homo sapiens

<400> 409

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acttttcttc accctctctgg acagccagag cactctagag cagatatgca aaaagtcagc 180
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<210> 410

<211> 159

<212> DNA

<213> Homo sapiens

<400> 410

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ccattttctg ctgtgggtaa ctgcgtgcag tgccttgcct tgctttctct tcttactgtc 120
ccacagcttg gtttcattgtt acaaacagaa aagctcgag 159

<210> 411

<211> 230

<212> DNA

<213> Homo sapiens

<400> 411

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tgattttatt cctttcactc tttttttgtc ttcttgtaag tctttgcctg agcttgaagg 180
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<210> 412

<211> 181

<212> DNA

<213> Homo sapiens

<400> 412

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gcctgctttt attttcttgt ctgcatgtat tttatatttc tgttttccca tcacactcga 180
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<210> 413

<211> 166

<212> DNA

<213> Homo sapiens

<400> 413

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gattaccgcg ctccttcaac tgtactacat tcatacatct ctcgag 166

<210> 414

<211> 116

<212> DNA

<213> Homo sapiens

<400> 414

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attttatcat tttttccctt cttttttatt ttttaaat ttagcatacc ctcgag 116

<210> 415

<211> 301
 <212> DNA
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<400> 415
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 agagcagaaa gagttgcagg aaaacatgat gtggtgtttc atgcaacata gtggaaatgc 240
 agttttaggt catcaggctg cacttcctct cagtcgcgag cccagagct caatactcga 300
 g 301

<210> 416
 <211> 355
 <212> DNA
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<400> 416
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 acctgagaga gaaagcatga ctctggaatc cacctgccat cagagctctc tccagatccag 240
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<210> 417
 <211> 177
 <212> DNA
 <213> Homo sapiens

<400> 417
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 gaaagaaata taaaggaatc ataaagtga gcagataggt gctaagtga tcctgtttac 120
 aatatttgag ataattctta aagtcattat accagtcttg atatgagggg cctcgag 177

<210> 418
 <211> 151
 <212> DNA
 <213> Homo sapiens

<400> 418
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<210> 419
 <211> 260
 <212> DNA
 <213> Homo sapiens

<400> 419
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 gtcattagggc aggactcgag 260

<210> 420
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 <212> DNA

<213> Homo sapiens

<400> 420

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<210> 421

<211> 190

<212> DNA

<213> Homo sapiens

<400> 421

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 acaagccaaa attatctgct ggtgactgga actcacagac agaggcttgc tagccctttt 120
 gcattgattg agaggctttt caaatttaat cattgctatg atttcaatat ctgttcccc 180
 aaaactcgag 190

<210> 422

<211> 173

<212> DNA

<213> Homo sapiens

<400> 422

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 tcctaattgag agaccaaaaa tattttcact tgggttctct gtggtacctc gag 173

<210> 423

<211> 214

<212> DNA

<213> Homo sapiens

<400> 423

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 aaagccacct ggctctggta tcttctctta cagatcacct caacacttaa atcctcaaat 120
 tctaacatat acatttctac ttattggcat ataaatgttg gtaaagtgtac tacaatcatt 180
 tcatgcaagg cagctgttgt ctacagtcct cgag 214

<210> 424

<211> 170

<212> DNA

<213> Homo sapiens

<400> 424

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 tatcatctat ataacttcaa agtatgatgt ttatacaaag aatcctcgag 170

<210> 425

<211> 187

<212> DNA

<213> Homo sapiens

<400> 425

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 taatctcctt taaaatttgg aataatatag ttgttagaat aatataataa tcatgcagaa 180
 tctcgag 187

<210> 426

<211> 148

<212> DNA

<213> Homo sapiens

<400> 426

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 tgcctgtctc tgagcatcaa tgccttgtgc tgttctaaca ttttggtttt tttctgtctc 120
 aatttcacgc ttggcccttt cctcgcag 148

<210> 427

<211> 204

<212> DNA

<213> Homo sapiens

<400> 427

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 tagcaggggc atggggcgtg aagaacagaa gacaggaagc gtttcagaga ctccaaagaa 180
 gaaatcaggg ccaaccaact cgag 204

<210> 428

<211> 216

<212> DNA

<213> Homo sapiens

<400> 428

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 ttgtcatctc caccagtaat gtatgaggat tctagtgtgc cctatctctc acaaattagt 180
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<210> 429

<211> 214

<212> DNA

<213> Homo sapiens

<400> 429

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 atggatcaac atgacattct caggetttgt cacaaccaag gtccatttct cactgacct 180
 ccgttttaag cctatgttac aacaagaact cgag 214

<210> 430

<211> 137

<212> DNA

<213> Homo sapiens

<400> 430

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 gtctttccct cctcgcag 137

<210> 431

<211> 245

<212> DNA

<213> Homo sapiens

<400> 431

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aagatagctg aaaaagaaca tcactacctc ctttaattccc tcattggaaa ttttagtttta 120
 attttctgat gcttaaaact ttctgtgctt cagtttttcc tttttataaa cgtttgatca 180
 tattttaccat ctccttaatt atggttagaca taattatcat aattaggtct agccccagac 240
 tcgag 245

<210> 432

<211> 248

<212> DNA

<213> Homo sapiens

<400> 432

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 ctagaattat cgttttagttc aaettttttaa atttatctat aaggaaacta agccttgga 120
 agatggaaag aaatcttcct agaccataa agccacataa ggattctgta ttttatttgt 180
 ttgtttttt tttatttttt agtttgtttt ttcattgtaag gatttttaat cttccccacg 240
 gactcgag 248

<210> 433

<211> 203

<212> DNA

<213> Homo sapiens

<400> 433

gaattcgcgg ccgcgtcgac gatataacca ttcttaggat ataccttaaa tatctctgaa 60
 gtcagtattt ctcttgagat agagttaagt tggtttctcc ttcagttaaa gactccttgg 120
 tagtttttgt tagtttcaaa agtcattcag ctattgaaac aatgaaaca ttacagcatt 180
 tagtttccgt gattgtactc gag 203

<210> 434

<211> 218

<212> DNA

<213> Homo sapiens

<400> 434

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 tattagctac tagtttcatt ttaacttagt taaggaggca taaaatgtta ttaaaggact 120
 tatttttatt tattttattt ttgagacagg gtcttgctct gtcaccacagg ctggagtgca 180
 gtggtgtgat cataggtcac tgcagcetta aactcgag 218

<210> 435

<211> 239

<212> DNA

<213> Homo sapiens

<400> 435

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 tgaattgtt agctgggtac tttgtagttt ctactttgtg gttgctactg tgtgcttgc 180
 ttataggacc tatggggtat gtacttaagt gtgtttttgt ggtagcaggt cgcctcgag 239

<210> 436

<211> 217

<212> DNA

<213> Homo sapiens

<400> 436

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 gaatcaggaa aaaagtttta aaattcattt tttaaaaata agttcaggtt ataacttta 120
 agaagttaa tcttgttttt tcagacttgc agaaaatact ttagaaatgc tgactctaaa 180
 atttatcttt catatgttgc tggtaggtag actcgag 217

<210> 437

<211> 160

<212> DNA

<213> Homo sapiens

<400> 437

gaattcgcg cgcgctcgac cttcattgat ctttttctct tccatgcatgg taatgagaac 60
 tgcccggttc acctccttta cctatcattt tcttccttac tgcattttca cagcatgcta 120
 tttctctgag atgttccagc aagcaggcca agcgcctcgag 160

<210> 438

<211> 180

<212> DNA

<213> Homo sapiens

<400> 438

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 ctaatcttca agaggaattt gaggttcact tgaataagtt agactagttt gaggtgggtg 120
 tagctagagg attgaagtcg taccaaaaaa aaaatgtatg tatatgtata tgcctcagag 180

<210> 439

<211> 211

<212> DNA

<213> Homo sapiens

<400> 439

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 aaagcagtct cctctctatt tgtaagtta catttttagc ggaaactact aaattatttt 120
 ggggtggtta gccaaacctc aaacacagta atctccctgg ttaaaatca caccagtggc 180
 tttgatgttg tttctgccc gcacctcga g 211

<210> 440

<211> 264

<212> DNA

<213> Homo sapiens

<400> 440

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 aatcaaacct gctatttcag cactcctgtt ttaacttgg tgtcttttagt gcttggattg 180
 gtgggatgtt tcggaatggg cattgtcgcc aattttcagg agttagctgt gccagtgggt 240
 catgacgggg gcgctcttct cgag 264

<210> 441

<211> 174

<212> DNA

<213> Homo sapiens

<400> 441

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 atgagctacc ggcgccagct gacttgtaca gcttctatgg tgtgctttac atttttctg 120
 cttttgagca tttctgagag gcctcgtgtt ttcttttctt taacaaacct cgag 174

<210> 442

<211> 166

<212> DNA

<213> Homo sapiens

<400> 442

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ttcgggggatg aagtggactg gcatatctcc acatattcag ttatttatat gtaattttga 120
 aaactttgtt caggaacctt ttgtattga aagaacaaaa ctcgag 166

<210> 443
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 443
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 agatatatgt tgtttagtgt ccaagtactc gag 153

<210> 444
 <211> 236
 <212> DNA
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<400> 444
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 ttaatccctt tatattataa agcagggttac acagtgttaa atcaactcct tacacaattc 120
 tttttaaaaa taatttaaga gaagaaatga gaaacatact aataggtctt acatatacct 180
 acatattttat tgtttctagc actctctctt tcttctatgg attcaggcgt ctcgag 236

<210> 445
 <211> 125
 <212> DNA
 <213> Homo sapiens

<400> 445
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 taaaccataa ccatacttaa gtaagttaat tatactatat gttagaaagt tctgagacgc 120
 tcgag 125

<210> 446
 <211> 346
 <212> DNA
 <213> Homo sapiens

<400> 446
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 actcttttatt tcaactgtag tgagtgttag gtaaggctgt tgattggggt tcaaagctga 120
 gaacttcagg cctcagttgg ttctagtctc agcattgctt ttcacttaac ttctctgagt 180
 ttcatttctt tccatgataa tgagagaatt gggccctttg aactaaata aactgggtg 240
 ggtggatctg aagacatttt atctgcttat tcttttcaact cttatgtctc tgtcaaccgg 300
 attgacagat tctcatgtt ttcactctgg tccacaacca ctcgag 346

<210> 447
 <211> 119
 <212> DNA
 <213> Homo sapiens

<400> 447
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 gaagtattac ctacacaaag atgagagtca aagctgaaag aagggatagc catctcgag 119

<210> 448
 <211> 140
 <212> DNA
 <213> Homo sapiens

<400> 448

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 ttaaaattag attaaatttc ctttagatcac ctctaaaaat taaaagaatg gtattagttc 120
 caagtagttt gtcctctgag 140

<210> 449

<211> 190

<212> DNA

<213> Homo sapiens

<400> 449

gaattcgcgg cgcgctcgac ctatttttagt ttttactctg aattaattgc aaggaaagct 60
 tcaaaacttca ttttgcgtga ttttttttaa aatgtatttt ttgtttaaaa gcataagtgt 120
 tttctactct ttatttctga tggaaaaafa tgagaatcca atagtcaacc aaggtaacgg 180
 aacactcgag 190

<210> 450

<211> 260

<212> DNA

<213> Homo sapiens

<400> 450

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 aggacacaag ttcacaagtg tggacaggaa cattaaactt tctgccagcc gaaatctgtc 120
 aggagcttgg ttcagatttt ttttaactct aaaaagcgct ttggttcaaa gcagattcgt 180
 taagagtgtg gggagttttt gttttgtttt attttaagct gcattaaact ccaatgtata 240
 tgaagggggc aatcctcgag 260

<210> 451

<211> 245

<212> DNA

<213> Homo sapiens

<400> 451

gaattcgcgg cgcgctcgac attctgtctg tgtacatttc tctctagaag ttagtcagaa 60
 cagtgtcttt aatttatgag gctttataat ctactttatt gatagactcc agagatagg 120
 aaacatttca tactaacaca agagcaaagg tctttatgaa atatagacat acggtctcac 180
 aagcatcaat atttttgggtg gtgttttttag ttatactgtg tataataaac agagtgaatc 240
 tcgag 245

<210> 452

<211> 155

<212> DNA

<213> Homo sapiens

<400> 452

gaattcgcgg cgcgctcgag ctctccccag ctctccctaca ttcttccatg ctagtccctt 60
 tcctcctctg ggtgtctgca tatgtggccc ctctctcatg cagcttttcc tggccagcct 120
 atggaagtag gtccatcagg caccctccc tcgag 155

<210> 453

<211> 217

<212> DNA

<213> Homo sapiens

<400> 453

gaattcgcgg cgcgctcgac ggagatttgg atttaagaca gaaaattgga atgtgtcttt 60
 ttgggtgttc ctcatctac tgcttatgtt gactatgggc aggaatcttt acctcttaac 120
 ttcatttttt acgtttattg aatgggtact ttctatttat ctacttatca gtactaggca 180
 gattctgtat aactttcagt ttcaggatac tctcgag 217

<210> 454
 <211> 249
 <212> DNA
 <213> Homo sapiens

<400> 454
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 ccctctgggtg ccatagcaat ctgtttctgt tctcttttgc ttttgttggc acccagaaat 180
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 gcaggcttgt cagcgggcca ccggggcctt gcacactcac cgcgaccacc cgcacacagc 180
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 <212> DNA
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<400> 456
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 cttggacacc agagcagcta taggtatctg ccagagctat gaaatcattc agccggatcc 180
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 cttctgaaaa ttccaaacga gatcgctta acccagaatt tcctgggact ccttacctg 360
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 <212> DNA
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 <211> 151
 <212> DNA
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 <211> 292
 <212> DNA
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 tctggcactt tacaattcat tttgcaataa tgacacaaaa gcacagagag attaaggagc 180
 tttctcgaag tctccaaact tgattatcta tttttttctg ttctgcctac acaacttcta 240
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 <211> 178
 <212> DNA
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<210> 467
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<210> 469
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<210> 470

<211> 181

<212> DNA

<213> Homo sapiens

<400> 470

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<210> 471

<211> 242

<212> DNA

<213> Homo sapiens

<400> 471

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 attttgtcgt gctgttgcgc ggttttccact tggcactgtc ctttaaacct cttctgtgcc 180
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<210> 472

<211> 219

<212> DNA

<213> Homo sapiens

<400> 472

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 tatcaaatgc ctgctgctaa ttcaccctgt acactcgag 219

<210> 473

<211> 220

<212> DNA

<213> Homo sapiens

<400> 473

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<210> 474

<211> 219

<212> DNA

<213> Homo sapiens

<400> 474

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 ccgatgctag ccactagttt gatttttttt ctgttttata gtttgcctg catggtactt 180
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 ttccgtttcc acatagtact cgag 144

<210> 476
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 476
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 tactctaggt tgcacacacca cagttttaag aagttatgct gctgctgtta ctcgag 176

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 gctgttttgc aggttcaaac cttgtactac tcgag 155

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<400> 478
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 ag 122

<210> 479
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<210> 480
 <211> 109
 <212> DNA
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<210> 481

<211> 182

<212> DNA

<213> Homo sapiens

<400> 481

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 tgtatttcaa aggcatlgaa gcagggaagg ttccctatct cctcctatgca gataacctcg 180
 ag 182

<210> 482

<211> 144

<212> DNA

<213> Homo sapiens

<400> 482

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 aataaatcaa aggttcgagc tgtacatgca gttactgtga ttttagtgtg tgtaataaaa 120
 tgcgtgtgaag cacacactct cgag 144

<210> 483

<211> 194

<212> DNA

<213> Homo sapiens

<400> 483

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 cctctcagta tacttactct ttgacctcaa gaagcctcca attccttaac caaccttttc 180
 cccctccctt cgag 194

<210> 484

<211> 194

<212> DNA

<213> Homo sapiens

<400> 484

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<210> 485

<211> 228

<212> DNA

<213> Homo sapiens

<400> 485

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<210> 486

<211> 121

<212> DNA

<213> Homo sapiens

<400> 486

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g 121

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<400> 487
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aaactgggca aggtgcccc tgetgttatt attccccag ctgctcccct ttcagggaga 180
agacgacgac ccactaaaag caaaggcagc actcgag 217

<210> 488
<211> 204
<212> DNA
<213> Homo sapiens

<400> 488
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gcatgtattt ccactcggact cgag 204

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<211> 288
<212> DNA
<213> Homo sapiens

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cacctaagtc atgggatggg catgagtgag acactctgga ataattctga tgetactctg 180
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agggagcatt tcttggtttc catattgtgt ttatgtcatt tactcgag 288

<210> 490
<211> 266
<212> DNA
<213> Homo sapiens

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caacaccaac actcacacac ctcgag 266

<210> 491
<211> 166
<212> DNA
<213> Homo sapiens

<400> 491
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gtcatttatt attaacacat tagctctcag aagtttgctg ctatttgctc acctttttt 120
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<210> 492

<211> 246

<212> DNA

<213> Homo sapiens

<400> 492

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tttaccctta aattcttttag tacagatttc taaaaataaa gaacattttc ctgtatagtt 180
acaaaatcac cttttcaaac aaaataaaaa atgtttttta tatcatttat taccagtc 240
ctcgag 246

<210> 493

<211> 243

<212> DNA

<213> Homo sapiens

<400> 493

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atagaaacca ctttagatta ttatcaactt ggactaggct ttattttata atagcatagt 180
aagtaatatc tattgtgtca tttcttcaac cattttatto taagatccat gaggtactc 240
gag 243

<210> 494

<211> 207

<212> DNA

<213> Homo sapiens

<400> 494

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gaggggagtg ttgaaattg ccaaacactc acctcttact caaaacttca aataaaatc 180
acattttcaa gagagagcac cctcgag 207

<210> 495

<211> 203

<212> DNA

<213> Homo sapiens

<400> 495

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aggaggccag gtcagagct gagatgtggt ctgaaccttc cctgtatcga tcctttaatt 180
tagaactgtc aagatgtctc gag 203

<210> 496

<211> 172

<212> DNA

<213> Homo sapiens

<400> 496

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<210> 497

<211> 180

<212> DNA

<213> Homo sapiens

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<211> 234

<212> DNA

<213> Homo sapiens

<400> 503

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gaaacttttg attcattcat gtggtgcttg agctgggaat ttgaatccct gaattcattc 180
ttcttttttc ccccactttg tctagtacaa ttaggagcaa caaccactct cgag 234

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<210> 504

<211> 147

<212> DNA

<213> Homo sapiens

<400> 504

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accctgtgtt ttaaaatata tataatgttc aacctaattg atatgcaaca ttatttctat 120
tctaattatt tgacagggaa actcgag 147

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<210> 505

<211> 311

<212> DNA

<213> Homo sapiens

<400> 505

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aaggggagaa atgtacttgg aaattaatgt atgtttacat ctctttgcaa attcctgtac 120
atagagatat attttttaag tgtgaatgta acaacatact gtgaattcca tcttggttac 180
aaatgagact ccttcagtea gttatccaaa taaaagcagt tctgaaacta tccctttctt 240
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<210> 506

<211> 207

<212> DNA

<213> Homo sapiens

<400> 506

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ccatctctac ctttaacatc acccagaccc ccgcccctgc ccgtgcccc cgtgtgtgt 120
aacgacagta tgatgcttac tctgctactc ggaactatt tttatgtaat taatgtatgc 180
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<210> 507

<211> 374

<212> DNA

<213> Homo sapiens

<400> 507

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tcttgcttct tgatgaattg gtgtccctag aaaaatgatg gattgagaca aagaagaaaa 300
ggagtttctc tggttttggg tctccccttg acagactctc agctggctct gtagatcaca 360
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<211> 195

<212> DNA

<213> Homo sapiens

<400> 508

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cccttgatca ctactttctc tctagttttg ggctccctca acctcacttc ctacctgatg 180
gggcctaaac tcgag 195

<210> 509

<211> 181

<212> DNA

<213> Homo sapiens

<400> 509

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cctctgctcc gatacctgtc ccactcagaa ttttaaggatc tgatactgcc caccatacag 120
aagtccttac tgaggagtcc agagaatgtt attgaaacta tttctagtct gcgggctcga 180
g 181

<210> 510

<211> 160

<212> DNA

<213> Homo sapiens

<400> 510

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ttgtacatct ctcatcatt gttgggggaa aaaaaagcac aactatacct ctttaattgt 120
attttcttcc attatccctc tgactcgggt tctccctata 160

<210> 511

<211> 214

<212> DNA

<213> Homo sapiens

<400> 511

gaattcgcg cgcgctcgac cgagttatct ttattagcct tttttgaatt gaatatctct 60
ggtattttct aaactagaat tgcacttaat tctaataat aaattttatt attgaattgg 120
taaaaagaga ttggcccttg ttctagcttt gtgactgttg tgctctcata aaaagctctac 180
tatatttatg attgttaggc gctatctgct cgag 214

<210> 512

<211> 209

<212> DNA

<213> Homo sapiens

<400> 512

gaattcgcg cgcgctcgac ggggggttcta gaacatgtgt gaataagctc ttgttttatt 60
ctcagcctct atgaggggaa tgaatgcca gagaccagag cccattctg cagctcctcc 120
ctgtttaggc tgtggaasac tggcctccaa actctgcagt gacaacacaa gatggcctg 180
aagcaagcct ggcaccagag ggtctcgag 209

<210> 513

<211> 143

<212> DNA

<213> Homo sapiens

<400> 513

gaattcgcg cgcgctcgac ctgagtttc aaaacataat agtatacaaa atataaaata 60
tcttaaatat ttataaaaat cacaagaaaa aaatagaacg tatgaaaata tttttatctg 120
agttctcccc cattattctc gag 143

<210> 514
<211> 130
<212> DNA
<213> Homo sapiens

<400> 514
gaattcgcgg ccgcgtcgac gtcattgttt gtcagtaaag ttttgtaact tcttcacaaa 60
gttctcgtgc ttcttataaa taatgtatct tacatcttac acttctattg ctattataca 120
ttgcctcgag 130

<210> 515
<211> 223
<212> DNA
<213> Homo sapiens

<400> 515
gaattcgcgg ccgcgtcgac gctctgaata gttaaaaatt aaatatttat tttcttcccc 60
aagctttagg taaggagaag aggggtcaag agttaaactt agagaccctt tgtctctgag 120
aagcatcctt ctaagacatt ctgttggagt tccctcagta ctattcctta caactggagt 180
gggtagaagc cttatgaaaa ttatactgag aacctgcctc gag 223

<210> 516
<211> 185
<212> DNA
<213> Homo sapiens

<400> 516
gaattcgcgg ccgcgtcgac tttaaaagag tgtaatggaa gatgagaggg attctatttt 60
ggaccacatg ttggtgtgga ggagtgtcat tgacagtaag caccacagge gtgtgtcttg 120
gagagcattg ggtatcgctc acttctgcag gtacttgttt ttttttctca tggccgaaac 180
tcgag 185

<210> 517
<211> 156
<212> DNA
<213> Homo sapiens

<400> 517
gaattcgcgg ccgcgtcgac gccccagtg tctttctgc tgcaggtagg tttttgtgtg 60
tcacaaatgc ttctgctgtg cttcttttgg tgtgttctgc ctcttctctt gagactgctg 120
ttccttcaag ttcagggtga gtctgatctc ctcgag 156

<210> 518
<211> 213
<212> DNA
<213> Homo sapiens

<400> 518
gaattcgcgg ccgcgtcgac cteccacat tcataacact tagatttate aaagtagttt 60
cgccttcgga tgaactcagc tgetcttcca ttgtcaatag caatgcttgc tttttact 120
ctaccaata actgtttgtt gttttattgcc ctggtacagt tttgtgcaga gtctttatcc 180
aaaaataaaa taaatgcaac ccctttactc gag 213

<210> 519
<211> 196
<212> DNA
<213> Homo sapiens

<400> 519
gaattcgcgg ccgcgtcgac tcgggaagct ataaaaattg taaaaggctc attagtaata 60

ttacacagga tactttaagg cagccctgca gagtagcatg catctagctc ccagagtttc 120
 tttatgcatt aatattgcac atgttctctt taccatgtg ggcaaggcag cccaccagcc 180
 cctcataacc ctcgag 196

<210> 520

<211> 238

<212> DNA

<213> Homo sapiens

<400> 520

gaattcgcgg ccgcgtcgac agatgttccg gccacccga acctcacact gcagtgtctg 60
 cgacaactgt gtggaacgat ttgaccatca ctgcccctgg gtgggcaact gtgtggggag 120
 acggaactat cgcttcttct acgcgtttat tctctccctc tcattcctga cggccttcat 180
 cttegcctgt gtggtcacc acctgacgtt gcgcgtcag ggaagcaact tcctcgag 238

<210> 521

<211> 197

<212> DNA

<213> Homo sapiens

<400> 521

gaattcgcgg ccgcgtcgac gtgagagctc agagctacag agcctttcag atgaatttga 60
 aaacagactc tgtgtgtgtg tgcattgtgt catgtgtggc atatgtgccg tatgtcagta 120
 gcttgacagt tttcaaatcg tgcctatatt tttttgcata cacaaatatt tgtgtttgca 180
 aactcagaat cctcgag 197

<210> 522

<211> 270

<212> DNA

<213> Homo sapiens

<400> 522

gaattcgcgg ccgcgtcgac aaacttcaac acaatgaggt gttgccacat ctgcaaactt 60
 cctgggagag taatggggat cagagtgcct cgattatcct tgggtggcat cctcgtatta 120
 ttactggttag ctggtgcttt gactgcctta cttcccagtg ttaaagaaga caagatgctc 180
 atgttgcgta gggaaataaa atcccagggc aagtccacca tggactcctt tactctcata 240
 atgcagacgt acaacagaac agatctcgag 270

<210> 523

<211> 208

<212> DNA

<213> Homo sapiens

<400> 523

gaattcgcgg ccgcgtcgac ctcataaat tcatcacttc aatcaaccct attcaaatct 60
 tgtgcacact tactcactga tgatgccgct gaacttctgc ctcttttatg ctgttacctc 120
 ctcttccct ctccttcacc ttagccctcc tagacctgac atcaacttaca gggggactaa 180
 ggtgcaggga acacggccca tgctcgag 208

<210> 524

<211> 230

<212> DNA

<213> Homo sapiens

<400> 524

gaattcgcgg ccgcgtcgac attttaagga agctacttga attgctcatt ctgtgacttt 60
 atttgtgtcc taaacattct tcagtgaata caattttatt tcagtcaaac atttatgagg 120
 aaatgagatc acatctttgt cactggatgc tacttgaaga gggagtactt tgtaaccact 180
 ttgatatgct gttatcacca cccctgccc tccgcaaggt tctccctata 230

<210> 525
 <211> 641
 <212> DNA
 <213> Homo sapiens

<400> 525
 gaattcgagg ccgcgtcgac ctacaagcag cttcccttcc tgcgtgacca agtgacaagg 60
 aagtttcggg atgagcccag gccccgcttt ggtcttctcc gtggccgaga gttttacatg 120
 aaggatatgt acacctttga ctccctccca gaggctgccc agcagacctc cagcctgggtg 180
 tgtgatgcct actgcagcct gttcaacaag ctagggtctgc catttgtcaa ggtccaggcc 240
 gatgtgggca ccatcggggg cacagtgtct catgagttcc agctcccagt ggatattgga 300
 gaggaccggc ttgccatctg tccccgctgc agcttctcag ccaacatgga gacactagac 360
 ttgtcacaaa tgaactgccc tgcttgccag ggcccattga ctaaaacca aggcattgag 420
 gtggggcaca cattttacct gggtagcaag tactcatcca ttttcaatgc ccagtttacc 480
 aatgtctgtg gcaaaccaac cctggctgaa atgggggtgct atggcctggg tgtgacacgg 540
 atcttggctg ctgccattga agtccctctc acagaagact gtgtccgctg gccagacctc 600
 ctggcccttt accaagcctg cctcatcccc cctaactcga g. 641

<210> 526
 <211> 264
 <212> DNA
 <213> Homo sapiens

<400> 526
 gaattcgagg ccgcgtcgac ctactttatg ctgataaaac aggtctatgc agctaccagg 60
 acaatggaat ctacgttgac tttagcaacg gaacaacctg ttaagaagaa cactcttaag 120
 aaatataaaa tagcttgcct tgttcttctc gctttgctgg tgatcatgtc acttggatta 180
 ggcttggggc ttggactcag gaaactggaa aagcaaggca gctgcaggaa gaagtgcctt 240
 gatgcatcat tttagagaact cgag 264

<210> 527
 <211> 244
 <212> DNA
 <213> Homo sapiens

<400> 527
 gaattcgagg ccgcgtcgac ggcatttctg tcgaacacga gttagcagtg tggaaagtgt 60
 aattggagga agattaaagac tagtgtatga agaaagcgaa gatagaacag atgacttctg 120
 gtgccatagc cacagcccat taatacatca tattggttgg tctcgaagca taggtcatcg 180
 attcaaaaga tctgatatta caaagaaaca ggatggacat tttgatacac caccaacgct 240
 cgag 244

<210> 528
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 528
 gaattcgagg ccgcgtcgac ccttttttgg gaattgagtg ctgtttttgc ttttctcaga 60
 ttccaaatga gagtatacat ttttcttctg ttgatgtgct gggtagagac tggctctgac 120
 cctgctgggc caaggttctc cagaaaacca ccatatagca gattagatta cacggatgca 180
 aagtttggg atgtcatcca ttctgaactc aatgcctatt atttgttct cagtataatt 240
 gttccagata aaactatgat gggtagaactc gag 273

<210> 529
 <211> 412
 <212> DNA
 <213> Homo sapiens

<400> 529

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gaattcgagg cgcgctcgac ctttcattta tcatatgact tggtagaaac cgtttttctt 60
accgtataaa acctgagetc ttttagttatt ttggaaaatg aaagcacgtt cattgtcgtt 120
ctgttgggtt tccaacagaa cttgggttctt gtggttactc aatatttcat tgtgtttagg 180
ccctgtggat ggagagttac caccagagac tagaaatcag gccataaacc caccagccaa 240
tgctctccga ggaggagcca gccaccctgg aaggcatcct agggccaaca accatcctgc 300
tgcttactgg cagaggggaag agagatttag ggccatgggc aggaaccac atcaaggaag 360
gaggaaccag gaggggcatg ccagcgacga agctagagac caagaactcg ag 412

```

<210> 530

<211> 110

<212> DNA

<213> Homo sapiens

<400> 530

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gaattcgagg cgcgctcgac cctaaaccgt cgatggaatt ccagtacytt ttgttgtaca 60
tttttagtctt gtttactttc tcttcattgt taagagtatg caaactcgag 110

```

<210> 531

<211> 257

<212> DNA

<213> Homo sapiens

<400> 531

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gaattcgagg cgcgctcgac agacaacatc accctagccc aagacatcgc tattagagat 60
acatcacctg gacactaaag cctccacccc agtgacactc tcaaggtgct gacaaaatgg 120
acatggacat ttgttgcttt tcttcttttg aattaggaac tctattgtgt ttctgaatt 180
tactgtctgc ttggcccatg atcctggtat gtctcttgct ctctgccaaa acatgcaccg 240
tccccccac actcgag 257

```

<210> 532

<211> 195

<212> DNA

<213> Homo sapiens

<400> 532

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gaattcgagg cgcgctcgac tgtattcttg gtcactttct ctgcatagc tatcctcatt 60
ccagtatgtt tcattgggctg cctaagaata ctgaacatc tgacttgtgg agtcattggc 120
tcctattcgg tggtttttag cattgacagt tactggtcca caagccttc ctacatcact 180
tcgaacgtac tcgag 195

```

<210> 533

<211> 197

<212> DNA

<213> Homo sapiens

<400> 533

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gaattcgagg cgcgctcgac gttttattta tttgcttttt ttctggetcc tgagtggcaa 60
acaaaggaat tttttatgct ggagatactt tgtattattg atctaagttt aatatcttga 120
cctgtttgat ctgagagtct gttatagata tgtatctatt ttccttctt ccttccttcc 180
ctccttctt tctcgag 197

```

<210> 534

<211> 225

<212> DNA

<213> Homo sapiens

<400> 534

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gaattcgagg cgcgctcgac ctttaaccag cctcatttaa gttaatcacc tctttaaatg 60
ctcaatctcc aagtacagtc tcattctgag gttccagggg tttctcaacg taagaattta 120
gggggacaga attcagccc tagcagctgg gcagcaggac tcatgggtcc cagttctcag 180

```


gccccaaagga ctcagagcag caaaggatac gtgacagatc tcgag

225

<210> 535

<211> 177

<212> DNA

<213> Homo sapiens

<400> 535

gaattcgcgg ccgcgtcgac attctagacc agcctcacca gatggaagtt tatgcttatt 60
ttcttatttc acttggctgt catggatctc atttctctt tctgtctcat cctctactat 120
tcacccctct ccatagaccc atccctccct tggctattgg aacaactcaa gctcgag 177

<210> 536

<211> 403

<212> DNA

<213> Homo sapiens

<400> 536

gaattcgcgg ccgcgtcgac cctggagctt aaaaagctgc acgcaagtgt taaacttctg 60
acaatggcca agaacaaatt aagaggggcg aagtcacgga atgtatttca catagccagc 120
caaaaaaact ttaaggctaa aaacaaagca aaaccagtta ccactaatct taagaagata 180
aacattatga atgaggaaaa agttaacaga gtaaataaag cttttgtaaa tgtacaaaag 240
gaacttgcac atttcgcaaa aagcatttca cttgaacctc tgcagaaaga actgattcct 300
cagcagcgtc atgaaagcaa accagttaat gttgatgaag ctacaagatt aatggctctg 360
ttgtaataata ctggtgatgc atctaattct ccacacactc gag 403

<210> 537

<211> 247

<212> DNA

<213> Homo sapiens

<400> 537

gaattcagaa cttttcagct ggggaacgag agtaccagtg agtacagctt tacgaggtaa 60
gtctgatctt gaactttcta aggaaattca agacagtcta tcagaagtaa agtggaaat 120
gtttggcctt gaatttttct tagtggtaga agcccttttg ttccttttca catgttatca 180
agtggttaag gcagggggga ttotagatga aattcaggac aatctatcag aagtaaaaggc 240
actcgag 247

<210> 538

<211> 396

<212> DNA

<213> Homo sapiens

<400> 538

gaattcagcc aaagaggcct aaaaaaggag aagaagaaa agaaacctgc tgttggcgta 60
tttgggatgt ttcgctatgc agattggctg gacaagctgt gcattgattct gggaaactctc 120
gtgtctatta tccatggaac attacttccc ctcttgatgc tgggtgtttgg aaacatgaca 180
gatagtttta caaaagcaga agccagtatt ctgccaaagca ttactaatca aagtggaccc 240
aacagtactc tgatcatcag caacagcagt ctggagggaag agatggccat atacgectac 300
tattacaccg ggattggtgc tgggtgtgctc atagtgtcct acatccaggt ttcactttgg 360
tgcctggcag ctggaagaca gatacacagg ctcgag 396

<210> 539

<211> 342

<212> DNA

<213> Homo sapiens

<400> 539

gaattcggcc aaagaggcct acttgtgac tagtcttgc ctggtaattg tggattaatg 60
tcagcgtaa tcagccctc aaaggagag aaaagctggg ctttccctt gctgtacctc 120

atccagcttt tgatttccat ggccccacca tttatgtgca agatttgcaa tggttgtcag 180
 cttcctctga agaccgagct tgacgcctcc atgccagctg ccgttggaac gcaaagccaa 240
 gcaaggytca ggagggaagc tggcccggt gactggagaa tgggaacccc aggactctcc 300
 actcatctcg aagggttgtg gtccccccag gaaagtctcg ag 342

<210> 540

<211> 249

<212> DNA

<213> Homo sapiens

<400> 540

gaattcggcc aaagaggcct atggtagctg ttcggtagat gctctttgct atttataagt 60
 gactttaaac cttctcttgg ctgttaagaa atgtgttcta gatttagcta tttattgttt 120
 gcggcctgca tgctgaaaca gtgcttacgt tgtctccatg tgtacggggc ctgtgtggat 180
 ggtcgtatgt tttgcacatt ttgtagtgtg tgggtgtgctt cgccgcacac aaaaaaagag 240
 tacctcgag 249

<210> 541

<211> 230

<212> DNA

<213> Homo sapiens

<400> 541

gaattcggcc aaagaggcct acagagaccg tggacaacaa aatgatgggt tctatctgtg 60
 aacagaagct gcagcacttc agtgcgtgct tctgtctcat cctctgcttg ggaatgatgt 120
 cagctgtctc acccctgat ccaagtttgg ataattgagt gaaagaaatgg aagacgaaat 180
 ttgcaaaaagc ctacaactctg aatgaagaaa gacacaggag acatctcgag 230

<210> 542

<211> 365

<212> DNA

<213> Homo sapiens

<400> 542

gaattcggct aaagaggcct accaactgca gctccgagc agagaacctg gtccacgtcc 60
 acttcaaaaga ggagattggc attgctaagc tcatcccgct cgtgaccacc tacatcatcc 120
 tgtttgccta catctacttc tccacacgca agatcgacat ggtcaagtcc aagtggggcc 180
 tcgcccctggc agccgtggtc acagtactta gctcactgct catgtctgtg gggctctgca 240
 ccctcttctgg cctgacgccc acactcaatg gcggtgagat cttcccatat ctggtgggtg 300
 ttattgggct agagaacgtg ttggtgctca ccaagtcagt ggtatcaact ccagtggacc 360
 tcgag 365

<210> 543

<211> 366

<212> DNA

<213> Homo sapiens

<400> 543

gaattcggcc aaagaggcct aggatattca tcaaggatgg tgcagaagat gctgacctcc 60
 cgaggactgt tcctgatccct gacaatgctg aacttgtctc aggttcctag tataantgggt 120
 gagcagagat gggctattct ctcaactttc cctaaaccaa tgccagtctg ccatgatgct 180
 atagtttttc caaaattcgt tactactgat aaaacagtgg atttgccata tttacctat 240
 gatccccacc gagcaccatt aggagaaaat cgctctttac tagaacaggg tctctttatgt 300
 tttcaaatta atggaccagg aaattgctac aacctcacag cccgagcttt ggggggtgagt 360
 ctcgag 366

<210> 544

<211> 365

<212> DNA

<213> Homo sapiens

<400> 544

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gaattcggcc aaagaggcct acagagatga agcctccctc ccccttgact tgggttttta 60
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ttcagcaagc tgaacagctt gctgctgaga ctgaaggcat ctctgagctt ccacatgtag 180
aacgaaatct acaggagatc cagcaagctg gtgagcgctt gcgttcccg accctcacac 240
gcacatccca ggagacagca gatgtcaagg catcagttct totcgggtca aggggacttg 300
acatatccca tatctcccag agactggaga gtctgagcgc agccaccact tttgaacctc 360
tcgag                                     365

```

<210> 545

<211> 475

<212> DNA

<213> Homo sapiens

<400> 545

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gaattcggcc aaagaggcct accagcgccg aacaaacatg cagcggctcg ggggtatttt 60
gctgtgtaca ctgctggcgg cggcgggtccc cactgctcct gctccttccc cgacgggtcac 120
ttggactccg ggggagccgg gccagctctc caactaccct caggagggaag ctacgctcaa 180
tgagatgttt cgagaggttg aggagctgat ggaagacact cagcacaac tcgcagtgcc 240
cgtggaggag atggaggcgg aagaagcagc tgctaaaacg tcctctgagg tgaacctggc 300
nagcttacct cccaactatc acaatgagac cagcacggag accaggggtgg gaaataaac 360
agtccatgtg caccaggaag ttcacaagat aaccaacaac cagagtggac aggtgggtctt 420
ttctgagaca gtcattacat ctgtaggggg tgaagaaggg aagaggaacc tcgag 475

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<210> 546

<211> 436

<212> DNA

<213> Homo sapiens

<400> 546

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gaattcggcc aaagaggcct acaacgtcta aattatgtgc cactcgcgca accatctcca 60
caccatgact ggcctgaggg ccccttctcc agctccctcc accggccgg aactccggcg 120
gggtcttggc cccgaaatct tcaccttcca ccctctcccg gagcggggcg tgggtgtccac 180
cgcgcgtttg aacactttct cggggcaccg aaaacgcagc cgaagggtgc tctacccccg 240
agtgggtccg cgccagctac caaccgagga acccaacatt gccaaagagg tcctctttct 300
cctgttcgcc atcatcttct gccagatttt gatggctgaa gagggtgtgt cgcagccctc 360
ggctccggag gatgctacca gcgcggtgac acctgagccc atttctgcgc ccattactgc 420
gccccgggtc ctcgag                                     436

```

<210> 547

<211> 393

<212> DNA

<213> Homo sapiens

<400> 547

```

gaattcggcc aaagaggcct acgcatecac tgccgtccgg tcagacacgc tgaaggctgc 60
gctctgtcga agacttttga tgtgtcgtgc attctcttgc actttctcca gcagctggcg 120
cacctgccgg cagtagttag ccactttgca ctcccggaga aaagatttca gctgtagaac 180
agtaggcaac accaactctg ggaaagcgat ggtgtggggc tggctgcgca ggtattccag 240
agtaagggtca cacagctgtt ccagcagccc gtcccggtae gccttctcct gcaggttggg 300
gctggacagc ttcaagatca cagagaagtt gatgggcttg gagctcatgc gacctggccg 360
cctattgaag tccacctgct ggaaaatctc gag                                     393

```

<210> 548

<211> 447

<212> DNA

<213> Homo sapiens

<400> 548

```

gaattcggcc aaagaggcct agctgggttaa tcaactcata gatcttgtcc agatacaact 60

```

```

agatgtatta tgacaaataa ctcagcaggg atgtgaacaa aagtttccgg gatttgttgt 120
tatttccatt cagtattgta aatttactag ggcagctaata ctgtcaaaaa gtctttttca 180
gtatatgtta cagaattgga tgactgaatt tgaacagacc cttcgaggct tgccatcatt 240
caggtcaact ccacgcgctt ggacctgtcc ctgaccaaag gattacccaa ttggatctcc 300
tcagcatttt ctttctttta aaaatgggtg ggattaatat tatttggaga tacactttgc 360
tgtggattag tgttgccttc ttgattggtc tgtaagctta aggcctaaac taggagagac 420
aaggtgggta ttgcacaggc actcgag 447

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<210> 549
 <211> 313
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (220)

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<400> 549
gaattcggcc aaagaggcct aaagaaaggg ggtcgcagaa atggctgggg caattataga 60
aaacatgagt accaagaagc tctgcattgt tggagggatt cttctgggtt tccaaatcgt 120
tgctttcttg gtgggaggct tgatcgctcc agcaccacaca acagcagtac cctacacggc 180
aataaaatgt gtggatgtcc gtaagaacca ccataaaacn agatggctgg cgccttgggg 240
acctaacaag tgtgacaaga tccgtgacat cgagggaagca attccaaggg aaattgaagc 300
aatgagctc gag 313

```

<210> 550
 <211> 392
 <212> DNA
 <213> Homo sapiens

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<400> 550
gaattcagcc aaagaggcct agaggaaatc ttaagacat ggctggagct aaggcgtacc 60
gacttggagc agttctgctt cttatccact taattttcct catctctgga gccgaagcag 120
cttctttcca gcgaaaccag ctgcttcaga aagaaccaga cctcagattg gagaatgtcc 180
aaaagtttcc tagtccagaa atgattcaggg ctttggagta catagaaaag ctcaggcagc 240
aagctcacag agaagaaagc agcccagact acaatcccta ccaaggcgtc tctgttcctc 300
ttcaactcaa agaaaacgga gaagaaagcc acttggcagg gagctcaagg gatgcactga 360
gtgaagacga gtggatgagg ataatactcg ag 392

```

<210> 551
 <211> 419
 <212> DNA
 <213> Homo sapiens

```

<400> 551
gaattcggcc aaagaggcct atgagcttat agcttccaag ggccccctt ggctattttc 60
ttcctccatc agtcaagtgt ttaattcagt gtaacctacc agtctgtcct gggttgcatg 120
tctagcatat gtggaggttc tttttcactt tcttgacct catgtctgct tctcttgagt 180
ctttgttttt atagoaggaa gttagtattg ggggcttgaa tgatgcaggg caccaacaga 240
accattgcag gactgaaatc ccagactac cgataccttg gtggtcgggt ctcagcttca 300
ctaagaaagc agaacggctg cttatgctga agcctctgtg acagtcaagg gggtcattcac 360
ctacattatt gctgccaggg gtcacagccc tgacctttgc cttccagact tttctcgag 419

```

<210> 552
 <211> 223
 <212> DNA
 <213> Homo sapiens

```

<400> 552
gaattcggcc aaactcttta tctgttttgt taaaacatta taattttcct aggtgaggaa 60

```

aatgttaggg aaattgagag tgaaggacgg ttctctggcag gtcagggggg ttatttttat 120
ttttatctat ttttttttat tgtttctcct tagctgctgt ctgttcagtt ttgagactct 180
tcagtttcta gctttatatt catacaaagg cgttgcgctc gag 223

<210> 553
<211> 289
<212> DNA
<213> Homo sapiens

<400> 553
gaattcggcc aacatgacga agttaacaca gtggctttgg ggactggctc tctggggctc 60
tgcctgggct gccctgacca tgggagcact gggcttggag ttgcctttcc cctgcccaga 120
ggctctgtgg ccaactgcctg cctacctgtt ggtctccgct ggtgctatg ccttgggcac 180
ggctgggctat cgcgtagcta cattccaaga ctgcgaggac gctgcccag agctgcagag 240
ccagatcgtg gaggcccag ctgatttagc acgcaggggc attctcgag 289

<210> 554
<211> 331
<212> DNA
<213> Homo sapiens

<400> 554
gaattcggcc aaagaggcct agttttctcg ctatattcca ggtctacag tgtgtttttc 60
tcagtttggg agtttttcag tgtttctcat catattccag gacatacatt tttcaagtca 120
atttttccac gttattcagt tttctccaca cattccaggt catagagtgt ttgtgtctct 180
tttccatggt tttcagtttc ctcccataat ccaggtaacta cagtgtgttt tttttcattt 240
atctcggtat ataccatttt ttaccatatt ccaggctcta ctctgtgtt tctcattttc 300
catgatttta cattttccatg ccttactega g 331

<210> 555
<211> 391
<212> DNA
<213> Homo sapiens

<400> 555
gaattctgcc aaagaggcct accagcaccc ggtgccaggg gccatggagc cccggggcagt 60
tgcggatgcc ttggagaccg gagaggaaga tgcggtgaca gaagctctgc ggtcgttcaa 120
ccgggagcat tctcagagct tcaccttcca tgatgccag caggaggaca ggaagagact 180
cgcaaaagcta ctggtctccg tcttggagca gggcttgtca ccaaagcacc gtgtcacctg 240
gctgcagact atccgaatcc tatcccagga ccgcagctgc ctggactcat ttgccagccg 300
ccagagctta catgcactag cctgctatgc tgacattacc gtctcagagg aacctatccc 360
acagtcacca gacatggatg tcttctcga g 391

<210> 556
<211> 480
<212> DNA
<213> Homo sapiens

<400> 556
gaattcggcc aaagaggcct aagacgatca gataccgtcg tagttccgac cataaacgat 60
gccgactggc gatggtggca aaggcaattg aggaggattc tgaatgatgc ggccatttc 120
taccctcca aaaatcacct gtccaggatt ggagtaccga ctggagactg ggtactgggt 180
agcagcatca cctgcctgct ctgctgacct tacagctgtt gtctgattgg ttaagacatc 240
caactgcaca ttttgatttg ccagcagggg ctgcaccagc cctatgctct ggggtgggaga 300
cagagcttga gcagagctgt ggattgggtc aatagggatg ttcactgtac agggcgggtt 360
gttttcaggg acacctgatg ctctctgaac tggtaagtca tctcatctt cactgaaaac 420
gtttgggttg aagacaggca ggttaatatata gtccatggaa atcttcttaa cttctctgag 480

<210> 557
<211> 406

<212> DNA

<213> Homo sapiens

<400> 557

```

gaattcggcc aaagaggcct agatgaagaa agcacacgtg tttgggatca cgttctcctt 60
caccagggcc atgatgtatt tttcttatgc tgcttggttc cgttctcgtg cctacttggg 120
ggcacaacaa ctcatgaact ttgaaaatgt tatgttggtt ttttctcgtg ctgtctcttg 180
tgccatggca gctgggaata ctagttcatt tgctcctgac tatgcgaaag ccaaagtatc 240
agcatctcat atcatcagga tcattgagaa aacccctgag attgacagct acagcacaga 300
gggcttgaag cctactctgt tagaaggaaa cgtaaaattt aatgaagtcc agtttaacta 360
tcccaccgca cccaacatcc cagtgtctca ggggctgagc ctcgag 406

```

<210> 558

<211> 337

<212> DNA

<213> Homo sapiens

<400> 558

```

gaattcggcc aaagaggcct atctgaatat gcgttggttg gcagctcggg tcaactataa 60
gactttgatt atcatctgtg cgtatttcac tttgggcaca gtacttttgt ggaataagtg 120
ttccagcgac aaagcaatcc agtttctctg gcacttgagt agtggattca gagtggatgg 180
attagaaaaa agatcagcag catctgaaag taaccactat gccaaaccaca tagccaaaca 240
gcagtcagaa gaggcatttc ctcagggaaca acagaaggca cccctgttg ttgggggctt 300
caatagcaac gggggaagca aggtgtttgg gctcgag 337

```

<210> 559

<211> 374

<212> DNA

<213> Homo sapiens

<400> 559

```

gaattcggcc aaagaggcct acctcaacgc caccaccgcc tctcactcc atggccatga 60
gagccgcctg cctcttctct ctgttcacgc ctggcctgct ggctcagggc caatatgacc 120
tggatcctct ccccccattc ccggaccatg tccagtacaa ccactatggc gaccagattg 180
acaacgcaga ctactatgac taccaagaag tgagtcctcg gacccctgaa gagcagttcc 240
agtcccagca gcaagtccaa caggaagtca tcccagcccc taaccagag ccagcagctg 300
caggggacct ggagactgag cctaccgagc ctggccctct tgactgccc gaagaacagt 360
accattact cgag 374

```

<210> 560

<211> 285

<212> DNA

<213> Homo sapiens

<400> 560

```

gaattcggcc aaagaggcct agccgctgcc gtcgccatga cccgcggtta ccagcgagag 60
ctcgcccgcc agaagaacat gaagaggcag agcgactcgg ttaaggaaag cgccgagatg 120
atgggctttc tgctgccgcc cgcaagcaga gggactcggg gatcatgcag cagaagcaga 180
aaaaggcaaa cgagaagaag gaggaaccca agtagccttg tggttctgtg tccaaccctc 240
ttgcccctcg cctgtgtgcc tggagccagt cccaccatgc tcgag 285

```

<210> 561

<211> 425

<212> DNA

<213> Homo sapiens

<400> 561

```

gaattcggtc aaagaggcct acgaggagaa tggagaccaa acctgtgata acctgtctca 60
aaacctcct catcatctac tcttctgtct tctggatcac tggggtgata ctgttgccg 120
ttggagctcg gggaaagctg actttgggaa cctatatctc cctgattgct gagaactcca 180

```

```

caaatgctcc ctatgtgctc attggaaccg gcaccaccat cgtgggtttt ggccctctttg 240
gatgcttttg tacatgccgt ggtagtcctt ggatgctgaa actgtatgcc atgttcctgt 300
ccctgggtgtt cctggctgag cttgttgctg gcattttctgg atttgtgttt cgtcatgaga 360
tcaaggacac ctctctgagg acttacacgg atgccatgca ggactacaat ggcaacgaac 420
tcgag 425

```

```

<210> 562
<211> 238
<212> DNA
<213> Homo sapiens

```

```

<400> 562
gaattcttca gctgaggaac ggtggtacca ggtgaagaaa atccactttg ggtcccgacg 60
cgactgacaa ggaccgtgaa agagcaagar gaacccaag atgattctcc tgctcctgat 120
gattgagaca gggataagta tacctttgtg ggccatagta agatcatggc cagtaccttt 180
accggtacat tccaattctt ctaccttgcc tttatttttt gcaacagaaa ctctcgag 238

```

```

<210> 563
<211> 359
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (203)

```

```

<400> 563
gaattcggcc aaagaggcct agtttgagca cttcagcctc ttttttgtct gcgtgtttca 60
gatcaacgtc ttctttctaca cagtccatt agccatcaaa ttaaaggagc atcccatctt 120
cttcatgttc attcagattg ccacatcttc tatcttcaag tcctatccaa ctgtggggga 180
tgtggccctc tacatggctt tcnttccctg tgtggaacca tctctacaga ttctgcgga 240
acatcttctg cctcacttgc atcatcatcg tctgtctctt ttcttccctg tgtggaacca 300
tctctacaga ttctgcgga acatcttctg cctcaccggc atcatcatcg tccctcgag 359

```

```

<210> 564
<211> 399
<212> DNA
<213> Homo sapiens

```

```

<400> 564
gaattcggcc aaagaggcct agctttggtc tggaccgagc ggggcagcgt cccgggctcc 60
cgagtgtctc ccatggcgga tacgaccccg aacggccccc aaggggcggg cgctgtgcaa 120
ttcatgatga ccaataaatt ggacacagca atgtggcttt ctgcctgtt cacagtatat 180
tgctccgtc tgthcgttct gcctcttctt ggggtgcatg aagcagcgag cttttaccag 240
cgtgctttgc tggccaatgc tctgaccagc gctctgaggg tgcatcagag attacctcac 300
ttccagttga gcagagtgtt cctggctcag gccttgtag aggcacagct ccactacctg 360
ctgtattcac tcatcttctg caactcctac cccctcgag 399

```

```

<210> 565
<211> 373
<212> DNA
<213> Homo sapiens

```

```

<400> 565
gaattcggcc aaagaggcct aggcgacaag agtctggagg tggcggtatg gaatccatt 60
aagggtcgat tgggagttag ccgagtctct ttgaccaggg tagagcgcca gcgtcctct 120
gaaccggcac actttggcaa agttgcaatg gcctgtttgc ttaggcactg aagtggatga 180
tggttaggat gacaacttgc agagaacgag gattgtgagc tcagtttctg cccacactca 240
tttgacgcaa ccctaacaga gattgtgaag attttcaag tggggcacct cgatttctcg 300
aatctgtggt gtggcgaaata tccgtgttcc tctgtcttaa ctagcctgtt tgaaggcaca 360

```

gttcattctc gag

373

<210> 566

<211> 133

<212> DNA

<213> Homo sapiens

<400> 566

gaattcgcgg ccgcgtcgac gectcactca attcatgctt ttctctccag cagtgatgaa 60
 ctgctgggct ctgactaaac acttgatgct atttcaagct gttgacctt getcatttct 120
 caacctctc gag 133

<210> 567

<211> 281

<212> DNA

<213> Homo sapiens

<400> 567

gaattcggcc aaagaggcct acttttcccc actgcaaaac caggctcggc ttccctcgtg 60
 ctcatctacc tatagtgtat ctgaggtata ttttgacgt gttttcttac atggtcaata 120
 acatgctcgc cctcaccatt tttctcattt tattttcctt ccgccttaat ttattttgcc 180
 ttgcactttg cacttgccctg aaagggatga ggataccaaa gggggaaaat tcacctgttt 240
 tagggggaaa tttctctatt tttatgaatg gtgcactcga g 281

<210> 568

<211> 624

<212> DNA

<213> Homo sapiens

<400> 568

gaattcggcc aaagaggcct acctccccgc tgctgcgggt gccctggatc cagtcggctg 60
 caccaggcga gcgagacctt ccctgggtgg aggctcagag ttccggcagg gtgcatccgg 120
 cctgtgtgtg gcgcgaggca gggaaagccgg taccggggtc ctggccccag cgctgacgtt 180
 ttctctcccc tttctctctc ctccgcgggt gcggcgtcgc agacgctagt gtgagcccc 240
 atggcagata cgacccccga cggcccccaa ggggcggggc ctgtgcaatt catgatgacc 300
 aataaactgg acacggcaat gtggttttct cgcttgttca cagtttactg ctctgctctg 360
 ttgtttctgc ctcttcttgg gttgcacgaa gcagcaagct tttaccaacg tgctttgctg 420
 gcaaatgctc ttaccagtgc tctgaggctg catcaaagat taccacactt ccagttaagc 480
 agagcattcc tggcccaggc tttgttagag gacagctgcc actacctgtt gtattcactc 540
 atctttgtaa attcctatcc agttacaatg agtatcttcc cagtcttgtt attctctttg 600
 cttcatgctg ccacagcact cgag 624

<210> 569

<211> 467

<212> DNA

<213> Homo sapiens

<400> 569

gaattcgcgg ccgcgtcgac gtgctgggac atgagatgta ttctcttctt tgttctctac 60
 tctatctctg tgggtggaaa aaattactcc cattctatag aagagagacc agaacctccg 120
 agaggacaag caactttctt agggggcaca gctaggaggg taggctgaat aatgatcccc 180
 ctaaaatgtc cacattctaa tcccaaaaac ttatttataa agggactttg caggggtgac 240
 ttagttaagg atcctcagat gaggaggtt tcatggattg tttgggtggg cccaatgtaa 300
 tccaaggatc ctttcaagag caaggcagga gggccagagt cagagaaaca gacacgacaa 360
 tggaaagcaga ggttgggggtg atactggagt gggaggggcc accagccaag gaatgcagge 420
 agcctctagg agctggaaaa ggcaagaaag catgtttcct cctcgag 467

<210> 570

<211> 269

<212> DNA

<213> Homo sapiens

<400> 570

gaattcgcg cgcgctcgac gctgggggaa aaaagaaact aaatcaaata aaaataaatt 60
 ttcaaatctc atcaacaagt ggtacattca gtataaaact acaaagccc atatagatta 120
 ttacaagggt acataccaat caagaactag gcattcacatc caggaactgt gcatacatac 180
 taaatcattc attacagatt tttactttat tgtgaagtat attcaataaa atataagtga 240
 cagaaatgag aaaatccaca gtccctcgag 269

<210> 571

<211> 208

<212> DNA

<213> Homo sapiens

<400> 571

gaattcgcg cgcgctcgac ataanaagta tagtaaatac ataaaccaat aacatagtc 60
 cttattatca ttatcacata ttatgtactg tgcactgttg tacgtgctgt acttttatac 120
 agctggcagc acgggtttgt ttgcaccagc atccccacaa acatatgagg aacatgtaca 180
 tcttaccacg gttgcaactt cactcgag 208

<210> 572

<211> 178

<212> DNA

<213> Homo sapiens

<400> 572

gaattcgcg cgcgctcgac tccctactga agatagcttt gcttgaatga gcttgccctgc 60
 agtgcgaaat ctggggctta ttgtgttgac ggcgcagtcg ccattggttg tgcgtcctga 120
 ggacatgggt acttccctga ctatctgtca tgcctcactg gtaccccgta gcctcgag 178

<210> 573

<211> 172

<212> DNA

<213> Homo sapiens

<400> 573

gaattcgcg cgcgctcgac tgccagagag tttatagtag ttgaatatgg attatgaaca 60
 gttactttta tttttaattt tttgggggac ggaatcttgc tctgtcacc aggtggagt 120
 gcagtgggtc gatctcagct cactgcagcc tctgcctcct gggttccctg ag 172

<210> 574

<211> 183

<212> DNA

<213> Homo sapiens

<400> 574

gaattcgcg cgcgctcgac tgcttttggg ggaacagagt aatttctccc aaattactgt 60
 cttctgcctc cttaaatcagg accacatttt tcaggtgtgc ttatttgggg aacgaggcct 120
 ggtctgtgtt ccgctgtatt gctgatgaag ctaaaaatta agggattaat ggcacccctc 180
 gag 183

<210> 575

<211> 224

<212> DNA

<213> Homo sapiens

<400> 575

gaattcgcg cgcgctcgac cttttttcag tattgtttca ggaatggta ttgtttgttt 60
 ctattttact ttttactgtt tcctgggtac atgaccaatg tcatttgact ggtgagtaca 120
 ttgagctagc agcttttagg aaatttcatt gtgatctaga gatgcattg agctccctgc 180

actggcagcc tactttacaa ctaccatctg agaagggact cgag

224

<210> 576

<211> 249

<212> DNA

<213> Homo sapiens

<400> 576

gaattcgcg cgcgctcgac cagaaaacca atgtttaaca ttcacagagg attttactgc 60
 ttaacagcca tcttgcccca aatatgcatt tgttctcagt tctcagtgcc atctagttaa 120
 cacttcactg aggatcctgg ggctttccca gtagccacta atggggaacg atttccttgg 180
 caggagctaa ggctccccag tgtggtcatt cctctccatt atgacctctt tgtccacccc 240
 aatctcgag 249

<210> 577

<211> 251

<212> DNA

<213> Homo sapiens

<400> 577

gaattcgcg cgcgctcgac catcctttgg gacttcagtt cctgcttttc tttgtgaatt 60
 tttccctatt cgtatcctgt ccatactcct aagcaataca taccgtaggt ttgcctgtat 120
 ttaaaagtgg catcatgtcc ttacgttat tccagtttgc ttttttgta ctccagatta 180
 tatcttggga tacatccatg ttgatgcagg cagctgaggg tcatttactt tttccccact 240
 gcaaaactga g 251

<210> 578

<211> 161

<212> DNA

<213> Homo sapiens

<400> 578

gaattcgcg cgcgctcgac agaggttgtt cgcgccttga gaggtaagcg aagtgtggtg 60
 gcttccaagg aatacaaaaca taaaggcctt cgaccgttgc aaatagacta aagtgaanaac 120
 aaatctgaat gaagatgaag ttatttcaga cggttctcga g 161

<210> 579

<211> 173

<212> DNA

<213> Homo sapiens

<400> 579

gaattcgcg cgcgctcgac gcacgcactt catctggggc tgcagtgaag aagtattcta 60
 gttggagtgc tgcaaaaccca gccttaataa tctttggcaa agcactttgt gtcagtgtcg 120
 cttccagata cttctgtctc tcttcagcac tcaattcttg caactgcctc gag 173

<210> 580

<211> 160

<212> DNA

<213> Homo sapiens

<400> 580

gaattcgcg cgcgctcgac agatgccccat gaattcttaa attacctact aaatacaatt 60
 gctgatattt tacaagaaga gagaaagcag gaaaaacaaa atgggtcgtt acctaattgt 120
 aatattgata atgaaaataa taacagcaca cccactcgag 160

<210> 581

<211> 262

<212> DNA

<213> Homo sapiens

<400> 581

gaattcgcg cgcgctcgac tgaattctag acctgcctcg agccgtgcta ttactttcac 60
 ctcttttcatt gcttgtggaa aaacctttat ccagggaaga attaataact tcaacaatac 120
 tatcaaagga gggcctaaaa ttaaaaaaaa aaaagaaaca aaaaagttgt gaaacaacaa 180
 caacaacaat acttggcaaa ctcttgacag acttagggag aatattatga tattgaggct 240
 gctgttgact aaggcactcg ag- 262

<210> 582

<211> 175

<212> DNA

<213> Homo sapiens

<400> 582

gaattcgcg cgcgctcgac ggattcttca ttactacatc tgaaaagctt ctcatctaga 60
 aggtatttat ctcaaaattc atttgtgtgt ttcaaacaga atttcacaaa attctggctc 120
 ttaacaataa ataattgtga ttctaaacat cagaattgta acaggaatac tcgag 175

<210> 583

<211> 179

<212> DNA

<213> Homo sapiens

<400> 583

gaattcgcg cgcgctcgac gagatatctg tttttaaaaa aaagggtttt tttccttaaa 60
 tgtgcaaaac agcacagggc agtttagggc tcttcatagc tatcttcatg tacacattta 120
 tttggttac gagcactctt cttcctcagc ttttcccatc ccttatcgcc accctcgag 179

<210> 584

<211> 242

<212> DNA

<213> Homo sapiens

<400> 584

gaattcgcg cgcgctcgac aggagctgct gtggagaaag gtatactatg aagttatcca 60
 gcttatcaag actaacaata agcacatcca cagccggagc actttggaat gtgcctacag 120
 gacgcacctg gttgctggtg ttggcttcta ccagcatctc cttctctata tccagtccca 180
 ctaccagctg gaactgcagt gctgcacga ctggacccat gtcactgacc cccatgctcg 240
 ag 242

<210> 585

<211> 240

<212> DNA

<213> Homo sapiens

<400> 585

gaattcgcg cgcgctcgac ccagaaaaga aaagatagtg atttaacaaa cttttcctgc 60
 tcacctacat tgtcttcatt catatttatt agaatgacca acatacttta ccattccttc 120
 aatcacttta atttcattat gtttgggtta tttttcttct tgataaacca gttgtccctc 180
 agtatactcc agggattcat tccaggagca cctgtgtata ccataattca cacactcgag 240

<210> 586

<211> 177

<212> DNA

<213> Homo sapiens

<400> 586

gaattcgcg cgcgctcgac cactttcact gggccagaca gaaaacaaga aatctttttt 60
 gtgttggcaa atcaaaaggg catgttttta cagaaacttg ctttgcagat tcttcacctc 120
 gtgctgtca tgatactttc agctccatac caaggagggg taaaatacac tctcgag 177

<210> 587

<211> 147

<212> DNA

<213> Homo sapiens

<400> 587

```

gaattcgcgg ccgcgtcgac gatttttctg gggggaggat tggtttatgg aacgaattat 60
ttcttatttt tcatggcaac ctacaaattg acttcctttg ttctcatcac cgtctttgtt 120
gttagaatat gttcagagag tctcgag                                     147

```

<210> 588

<211> 288

<212> DNA

<213> Homo sapiens

<400> 588

```

gaattcgcgg ccgcgtcgac accaaataga actgtaaaca gtttgcac taataagctg 60
aatttctggg tgaagtacag ttggaacagg ttatctccac atttgggtct tttacctctt 120
agcatagtgt gatttctttc ctctttttta aaaatccacc tccttctctt ctagcatagt 180
gtgatttctt taaatctttt ttatcctatg ctaaagtgtat gggttttttg tttgtttgtt 240
tggctctact ctgtcaccca ggctgaagtg ttcagtggcc gtctcgag                 288

```

<210> 589

<211> 210

<212> DNA

<213> Homo sapiens

<400> 589

```

gaattcgcgg ccgcgtcgac cttcatgac tgggtcttacc tctcaggact cccccatcc 60
ttaccattgt ttgttgatct ctgggtgcagc caaatgaagc ccatcatgct tgcctctctc 120
ctggaagctc ttccttccct cttcctggcc aatggctact gtcccttcag agcacctgtt 180
cagatgaaac ctccaccaag caccctcgag                                     210

```

<210> 590

<211> 229

<212> DNA

<213> Homo sapiens

<400> 590

```

gaattcgcgg ccgcgtcgac ccgggtagta ttccatcata tatatataat cagatatata 60
tacataatca gatatatata tatataatca gatatatata tatcagtttc tttatccact 120
catttgcaat tatttaattt ttaataaaaa cactttataa acacataaaa ttatgagatc 180
tctagttata tttctcatgc taagccactg tgcttaccct tgcctcgag                 229

```

<210> 591

<211> 152

<212> DNA

<213> Homo sapiens

<400> 591

```

gaattcgcgg ccgcgtcgac ctccattctt tcatgtgtag gtttaatat gtggacccaa 60
tctgtgttct ggtaatggaa ttaatttgga taacatcatt agggctgggc acagttgttc 120
atgcctataa tcccagcact gaaaagctcg ag                                     152

```

<210> 592

<211> 175

<212> DNA

<213> Homo sapiens

<400> 592

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 tagtatagga ctccatttta gcagaatgaa gagtgtttcc cctactgac tcgag 175

<210> 593
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 593
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 caaattgatg aggtgggtca tatttttatt tatttattta tgtttgagac agggctcttgc 180
 tctgtctgct aggtctggagt gcaatggagc tatcactcct cactgcagcc tcgag 235

<210> 594
 <211> 244
 <212> DNA
 <213> Homo sapiens

<400> 594
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 gacttgacac attttcatga agttgggtga aataatttgt tgggtttgtt caatttttgg 180
 tgtcatttat ataaaaagaa taaagaagaa tgtgaatggt aggaagtcag gcgagatgct 240
 cgag 244

<210> 595
 <211> 229
 <212> DNA
 <213> Homo sapiens

<400> 595
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 ccacctctc ctggggcccc catggtgtat gggcctccac cccccaactt ctccatcccc 180
 ttcacctcta tgggtgtgct gcattgcaac gtcccagaac accctcgag 229

<210> 596
 <211> 218
 <212> DNA
 <213> Homo sapiens

<400> 596
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 ctccatttct ctgtccctct gcctgggcta tgggaagtgg ggatgcagat ggccaagctc 180
 ccacctgagg tattcaaaaa cggcacacac aactcgag 218

<210> 597
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 597
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 tccctctat gcctttgtag aacacaactc gag 153

<210> 598
 <211> 194

<212> DNA

<213> Homo sapiens

<400> 598

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gaattcgcgg ccgcgtcgac atttttccct gtttttggtg aggtaatgaa gaaggaaaaa 60
aaaaatctca tccaagatg caaagaaca atctgctggc ccaggtcatt ttcattggtat 120
ctttttgttt ctcttttctt tgttttgtaa gtacatgcat tttggctgaa aaagatacag 180
gcaccattct cgag 194

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<210> 599

<211> 232

<212> DNA

<213> Homo sapiens

<400> 599

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gaattcgcgg ccgcgtcgac cagaaaccca taaagatttc ttaaggatt tggatccgat 60
atctttctga attagggcct aaattattat gaatgtgaac ctagggtata tgtcttgccct 120
gtggatgtgt tgctgcgata ctttgaagca gaatgatttg tggatcattt taccagtcct 180
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<210> 600

<211> 227

<212> DNA

<213> Homo sapiens

<400> 600

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gaattcgcgg ccgcgtcgac cacaggtttt gaggaaacag agagctaaaa gttggagtgt 60
ttattctatc cacttttttag actttgcaag agtgtgcac cacaatcaca tatatatgga 120
tggaaatcact gaatcttttt catctcctat tcagaatata tctgcttctt gctttcacaa 180
tgtgcaattt tgctcttttc tgttgtgcag ctatgggaga actcgag 227

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<210> 601

<211> 198

<212> DNA

<213> Homo sapiens

<400> 601

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gaattcgcgg ccgcgtcgac tgaagaacgc cgaagaagg aagaacaagt catcacaggtt 60
taaatcttgt ttcaacttgt tgetagtat ctatgattgt tgeccaaagt gtatcagcaa 120
atgttcaagg tttttatact tgtcaaggct gttttcatta ttcacgtgtt aaaagtgaca 180
tcattctccc aactcgag 198

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<210> 602

<211> 233

<212> DNA

<213> Homo sapiens

<400> 602

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gaattcgcgg ccgcgtcgac cagaatcaaa tataaggcta aaattattag tgcatacagt 60
gaaattgagc aaccgcgtgt gttagaaatt aaaagggtgag ttctgttatt caccaactgt 120
taatttagcc caaaaagtgc cgagaaggag ttgggagtgg actccaatct gttatgaaag 180
tgagacaac attcttgttc cttctgatcc ctttcagtag cagttctctc gag 233

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<210> 603

<211> 119

<212> DNA

<213> Homo sapiens

<400> 603

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gaattcgcgg ccgcgtcgac gattaattct agacctgect cgagcgtat cttttcactt 60

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<210> 604

<211> 188

<212> DNA

<213> Homo sapiens

<400> 604

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agttggtaat tgaattagg actcattttc atagtcagac aatgttaata tttaggagga 180
gtctcgag 188

<210> 605

<211> 193

<212> DNA

<213> Homo sapiens

<400> 605

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gttccagatt acagagtttag actattccct cttttcttca tgcgttttgc agattaccaa 120
agttccagag aacctgctac cttttgcagt gcagtgcaga aacctcactg tgtccaatac 180
ccgaacactc gag 193

<210> 606

<211> 173

<212> DNA

<213> Homo sapiens

<400> 606

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aactcgctat cctgtttgtc tacctgctgg gggcactgac catgctgagt gaaacgcagc 120
acaagctgct ggcgaggcg ctggagtgc agaccctgtt ggggccgctc gag 173

<210> 607

<211> 310

<212> DNA

<213> Homo sapiens

<400> 607

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ttttctgatg gtttttcttc ctctcctca atccaaccca tccctctcc ttccctggca 180
tcaatgcctt tcccccttc ctttttctc ctctctccct ctccctcacc cctcttctt 240
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agccctcgag 310

<210> 608

<211> 189

<212> DNA

<213> Homo sapiens

<400> 608

gaattcgcg cgcgctcgac agaggcaata cagtaaaaat tacacggtag aaactgagtt 60
accagtgcac accaaaactt gggtagggag aatataccta aagttgtcct tagaaggaaa 120
attgtagttc tgtatatcaa catattaaag atgaaaataa aatttaaac aatagcacia 180
agcctcgag 189

<210> 609

<211> 188

<212> DNA

<213> Homo sapiens

<400> 609

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gctgggcatg gtggctcctg octataatct cagaactttg ggaggctgag gcaggcagat 180
cactcgag                                     188

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<210> 610

<211> 202

<212> DNA

<213> Homo sapiens

<400> 610

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ataacatcct cagatctatc ttctagtcta taaattttct tcaaccatga ctaattttat 120
gttatacttg tccaagatgt ttttaatttc agtgacaata tttttcattt tgaaagtctt 180
gttttttggc cagactctcg ag                                     202

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<210> 611

<211> 166

<212> DNA

<213> Homo sapiens

<400> 611

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gaattcgcg cgcgctcgac gattgatttt tcatatgttg aatcactcct tcgttttggg 60
tttattctgt taggtcatgt tgtgtaattc ctttttatat gttactggat ttagtctctt 120
agcgtttttt gaggatcttt gcactcttaa ttgtaaggga ctcgag                                     166

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<210> 612

<211> 152

<212> DNA

<213> Homo sapiens

<400> 612

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gaattcgcg cgcgctcgac gaagatacta aaactacttt ttctcccaca ggataattgt 60
agacgtacat tcaaaataga agtaaattaa tggtaatat agttcttcta tttttaatta 120
atagattaaa cttttggacc acggcactcg ag                                     152

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<210> 613

<211> 194

<212> DNA

<213> Homo sapiens

<400> 613

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gaattcgcg cgcgctcgac tagtagtggt gcattgtggt ttaatttgc atttccttga 60
tgaccattga agttgagcac attttcatat ttatagatca cttcagtatc ctgttttggg 120
tagtgtctgc taaaatcttt tctccatttc tctattgggt tgtctttttt tctgttttaa 180
gcaacacact cgag                                     194

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<210> 614

<211> 258

<212> DNA

<213> Homo sapiens

<400> 614

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gaattcgcg cgcgctcgac cttttagtaa aagtaaatat ttctgtctct ttttctgctt 60
tttattttcc tgcctcagtc tgtgttattt attttctatt ttcttttaac ttgttttggg 120
tttaatttgc tgttttctaa tttctcaagg tagaagccca gatttttgat ttgagacctt 180

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tcttttccctt ttttgaatat aagcatttga taatctgtgt tttcctttat gtaetgcttt 240
tgctgtgtcc tgctcgag 258

<210> 615

<211> 188

<212> DNA

<213> Homo sapiens

<400> 615

gaattcgagg ccgcgtcgac ccttcttgca acaagatgat cgtgagtcag ctgtcctata 60
acgcgggtgc tctgacctgg ctgtcctgag ggagcctgtg cctgctgggg tgcatagcgg 120
gctgctgctt catcccttc tgctggatg ccotgcagga cgtggaccat tactgtccca 180
tactcgag 188

<210> 616

<211> 149

<212> DNA

<213> Homo sapiens

<400> 616

gaattcgagg ccgcgtcgac gtccattcat tgattcattg aatgattcat ttactcaata 60
agcatatatt tgggtccatc ttggcccagg cactatgctg ggcattagag aaatttgaca 120
gtgggttagg gcaaggccct gccctcgag 149

<210> 617

<211> 193

<212> DNA

<213> Homo sapiens

<400> 617

gaattcgagg ccgcgtcgac aggatttaac ctatagagtt ctgattcttt cttcccttca 60
atttttatca agtatttaat tgcccactgg atgatttatt ttagaattgg cctacttttt 120
tttttttttg gcttcagtgc ctgtgggcaa atgtaaattt gtactggaat tagcaaacca 180
gggacgactc gag 193

<210> 618

<211> 233

<212> DNA

<213> Homo sapiens

<400> 618

gaattcgagg ccgcgtcgac atctgtaagt ctctctttac ctcttctct ctctctttct 60
gcctccctcc ttttctcttt agtttcccca gagtgttgcc gagctaagg tcaatcagag 120
gactcttaga taccttaatt ttttttggct ttatttttga agaaagggat catcgttccc 180
attagacat gtatttaca tgtgttttct tttgcttgc caccacactc gag 233

<210> 619

<211> 211

<212> DNA

<213> Homo sapiens

<400> 619

gaattcgagg ccgcgtcgac caaagtgtg tttcaaacat catataatgc tctgcctgga 60
aggagttcta ataaatatt tcttccctca ctttacatca ccagtgatgt ttttaaagtc 120
ctttatagat tgggtgtctg ggtattgct agctgacct tccctaattc tccccgggc 180
gccccaccg ccaccaaca caactctega g 211

<210> 620

<211> 187

<212> DNA

<213> Homo sapiens

<400> 620

gaattcgcgg ccgcgtcgac ttttggtgct gttagtatcg tcgcaacagc aaagagttta 60
ataacatttta ttttctagtgt tattgcagta atcattcttc ttttttttaa atttctaagc 120
tgttttatta aatgaaaaga gaacaatgct aagcagcttg tatggtgtgt gtggtgtgtg 180
gtcgcgag 187

<210> 621

<211> 170

<212> DNA

<213> Homo sapiens

<400> 621

gaattcgcgg ccgcgtcgac gttgattatc aaattgtttt tgagtgagtt ttggtagttt 60
gtgtctttta aggaattggt ccattttctc ttttaattgt caaatttggg ggcataaaagt 120
tatttatgct gttaccttac tatcttttta atatccgtta tggctcgcgag 170

<210> 622

<211> 247

<212> DNA

<213> Homo sapiens

<400> 622

gaattcgcgg ccgcgtcgac gttttaaaaa attctgttta atatctgctt agttggctgg 60
ctgcctttgt gttttcccta ctgattgta agctctaga ggacaaatta cagagcttat 120
ttattggtgg ttttaatttaa atacattttt ttctctacag attagtgcga accagtctgc 180
acagatgcga gttatatctg taaacttgcg cggatatttcg gtttacatac actatcatac 240
tctcgag 247

<210> 623

<211> 244

<212> DNA

<213> Homo sapiens

<400> 623

gaattcgcgg ccgcgtcgac gattagcaga ataacatcgg atcaaaactg tctagcctgc 60
agttccctt aattttgtat tataaaaaga aaacraaaca gagaaaactt taaaagacaa 120
tataatgata ccaogtagat tccagtactt gttacacagt tgccatattt gcttcgtctg 180
tgtgtctttt cggaaaccatt tgaaaattgt agatatgaca tttcacccca acaccagct 240
cgag 244

<210> 624

<211> 135

<212> DNA

<213> Homo sapiens

<400> 624

gaattcgcgg ccgcgtcgac cgcattttac caaccatatt cttttttaac tctacaaatg 60
gtgcagataa tccgaacact tatagttcat ttattgtttc caccctccca ctctgcacat 120
gactgttacc tcgag 135

<210> 625

<211> 140

<212> DNA

<213> Homo sapiens

<400> 625

gaattcgcgg ccgcgtcgac ataaaaacag cattgtagta cattactaca gctttgtggt 60
atattttgaa gtctggtagt gtgatgcctc cagctttgtt ctttttgctt aggatcgctt 120

gtctcttcag ggcctcag

140

<210> 626

<211> 249

<212> DNA

<213> Homo sapiens

<400> 626

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 taacacctcc ctgtctgatt gaatctagtt catctgttac actgaggtga gattaaattt 120
 gctaaacaca gtaattttgt accactcttt agcccaaat tacgtagttc tcatagctgc 180
 taaaaataga acaaaactctt tagcttttcc aggtcttcca taataatgcc caaacatacc 240
 catctcag 249

<210> 627

<211> 197

<212> DNA

<213> Homo sapiens

<400> 627

gaattcgcg cgcgctcgac ttctaaacat ttgtgttga agtgttttaa tatttgtagt 60
 tcacaacatt gatcaagttg gaatctttta ttatcttgaa cagttttatc aaaagtatat 120
 ttttcgtatt ttcatttget agcttttctt tgttattttt tgtgagactg aatactctta 180
 aaaaggccga gctcag 197

<210> 628

<211> 178

<212> DNA

<213> Homo sapiens

<400> 628

gaattcgcg cgcgctcgac gaagaatact gtgtattatc aaaatggtaa cattgtgttt 60
 cctcttgaaa cttgtttctt ttcattcagc attactgttg acatctatcc ttactgatac 120
 tttcaagttt gttctttttg cttatggcat tctactaatt aatccaccac atctcag 178

<210> 629

<211> 273

<212> DNA

<213> Homo sapiens

<400> 629

gaattcgcg cgcgctcgac aacactcctt atgacaagct gccacaaggc aagggcatca 60
 gatctcttta gtcaaggcaa gttctcagc ctgtatactg attatgtttt gggctggata 120
 attatttgtt gttggggtg tctgtgtat tgcagcgtcc tgggcctttg cccactagat 180
 gccaatagca tccctttccc caatgtggca accagaaatt accaaatgtt acctgagagc 240
 aaatcctctt ttactttctc catccctctc gag 273

<210> 630

<211> 216

<212> DNA

<213> Homo sapiens

<400> 630

gaattcgcg cgcgctcgac gtattatcaa atcattttgt gaaatcacct cattttaaga 60
 tttttaaatc taatgagtgt gagtaaaata cataactaat ttgctgtgaa tttagtatgt 120
 cttttctttt tctttaagtt tgtgccattg gattattctg ttcctataga aatccccact 180
 ataaaatgta aaccagacaa acttccattt ctcgag 216

<210> 631

<211> 168

<212> DNA

<213> Homo sapiens

<400> 631

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gaattcgcg cgcgctcgac gttctataaa gataaatccc ttctcctgcc attttatttt 60
atttatattg cataggggtt ttttaattca atgttttata atccattgca gttctttttg 120
atgctcccat tgtcacagat ttggctggta gtagtctccc cactcgag 168

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<210> 632

<211> 193

<212> DNA

<213> Homo sapiens

<400> 632

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gaattcgcg cgcgctcgac cagtttgatt tttagctcaa attgttgttt aaaataaatt 60
atgaatttga acgtattcag ctatggtttc cctttttatc tgctctaaaa gtgccttagc 120
tacaatagtt ttttctctgt tactcttcac tgaattttt ttttatgaag gaaaatcgct 180
ggaggggactc gag 193

```

<210> 633

<211> 211

<212> DNA

<213> Homo sapiens

<400> 633

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gaattcgcg cgcgctcgac gaaatataaa aactatgatg ctgcttcttt cttttttttt 60
cttgagacac agtctcactc ttttgcgcag gctgtactgc agtgggtggga tctgcactca 120
ctgcaacctc tgcctcccca gttcaagtga ttctctccc tcagcctccc tagtagctgg 180
aattacaggc atgtgccacc acgacctcga g 211

```

<210> 634

<211> 253

<212> DNA

<213> Homo sapiens

<400> 634

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gaattcgcg cgcgctcgac atcattttctt ctccatgctt agtactgcta ccttagtttt 60
gttctcctatg atttcttgcc tgtgttatta taatagatcc ctaagtgggc tctttgtcta 120
cattctcacc cctccattt tatcccattg tgctttccag aaggaacttt ctaattgtag 180
atctgattgt gcctctcttg gggcacacat cgtatcactg ccaggacagg accaagtacc 240
aagcaacctc gag 253

```

<210> 635

<211> 312

<212> DNA

<213> Homo sapiens

<400> 635

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gaattcgcg cgcgctcgac cctgggtctgt cccaacatga aggaataat ttgttacctc 60
attaatagat ctgtcctttt tcttttcaaa cagttcctta tgttacccat gaaatctagc 120
tggggctgtg tgggtttctga ttccccctgg ctattctttt acttttctta cttttccagg 180
ctcagcaggg agctgctgga tgagaaagag cctgaagtct tgcaggactc actggataga 240
ctttattcaa ctcttttga gtacctggaa ctgectgact tatgccagcc ctacagaagt 300
gacgaactcg ag 312

```

<210> 636

<211> 168

<212> DNA

<213> Homo sapiens

<400> 636

gaattcgcg cgcgctcgac agccagagca atagtaatgt ttatagacca tctttctcat 60
 aaatgccact gctcactatt gtacatatgt ctttttcaag tatttttgga agacctccct 120
 cctctgtac catatttccc taatgtctgt gaaactaagt acctcgag. 168

<210> 637

<211> 262

<212> DNA

<213> Homo sapiens

<400> 637

gaattcgcg cgcgctcgac gcattgaatc cagggttttt gtttcacttt gttttttcaa 60
 agaatacttc ttaagtgggt gtattttttt gttgtattac atcatgtggc aaatgatctc 120
 tgtctgtgat gttatgattg atcaggtttc aggtgttata agtttgatta ttcccttgta 180
 ccttgtcagc ttttaccag tgatttcagt ggccgttaat ggtcatgggc tagattcact 240
 atttcaggaa ggcacgctcg-ag. 262

<210> 638

<211> 254

<212> DNA

<213> Homo sapiens

<400> 638

gaattcgcg cgcgctcgac cttttcacga ttcattgctg aaggctttat tctatgaaga 60
 cctttgttgc tgaaggatg aaggatgtgg tagtaatgga aagtatttta ctgatctttt 120
 atttcctttt aaattttttg agacagagtc tcgctctgtc atccacgttg gagtgtggta 180
 gcgtgatctc agctcactgc aaccctgccc tcctgggttt aagcacttct cctgcctcag 240
 cctcccaact cgag 254

<210> 639

<211> 169

<212> DNA

<213> Homo sapiens

<400> 639

gaattcgcg cgcgctcgac ttttttcaa attactcata accagaagag ttctgttgga 60
 ttttaccata tggccagatt catcttgcc tcaaaactta tgtaagtaat ttttccaaat 120
 ctcttttttt ccataacat acatgctgct gattccactc ctctcgag. 169

<210> 640

<211> 159

<212> DNA

<213> Homo sapiens

<400> 640

gaattcgcg cgcgctcgac cctaaaccgt caattgaatt ctagcaagga atttgtgggc 60
 aaacctacta ttttagacac tatataaag actgaattgg cctgtaataa cacagttatt 120
 ggttcccaaa tgcagttaca gctgggaaga gtcctcgag 159

<210> 641

<211> 230

<212> DNA

<213> Homo sapiens

<400> 641

gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctaggcgtga gccaccacac 60
 ccagcctgct atagcttttt ctttgcctgag atttgttttt ccatttgctt tactagatta 120
 cttgaagcgc ttttataatg actgctgtag cttccttggt gaagaattcc agcgtctgtg 180
 tcactctggt gttggcatct acctattatc ttttctcctt caaactcgag 230

<210> 642
 <211> 253
 <212> DNA
 <213> Homo sapiens

<400> 642
 gaattcgcg cgcgctcgac gcttttaaga actttcaaat attttctcca gctgtatatt 60
 gggtgtcttc agggagaggt ttgttttgaa ttgcctcgt ctgttttcca gaagtgaata 120
 tttaaccga ctgacctttt agtttttagct actgtatttt taaatatttt atttgccttc 180
 ttttagaagc tacatgctca atttttgtag ttccctatac ctcataaata tttttgagct 240
 cagccagctc gag 253

<210> 643
 <211> 245
 <212> DNA
 <213> Homo sapiens

<400> 643
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 agcagactgc cccagccaca cccacgctct ctccctcttc tgtacgcatg acgctccttt 120
 ctgcctctga gcatttgcac gtgctgttcc ctctacttgg aatactcttc cctctttttt 180
 tttttatttt tgagacagag tctcactctg ttgccaggc gattctcttc tctcagctc 240
 tcgag 245

<210> 644
 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 644
 gaattcgcg cgcgctcgac cggatttcaa ggaattttta gactttgtgg attttttctt 60
 cactataatt gtagtgttgg ctccctaatt atttaaatta catcataga tatttttgtt 120
 acttttgagaa tagtctatct gaaatttgaa gttcttttaga gcttaataa ttaaataatg 180
 taacactcat cctcgag 197

<210> 645
 <211> 258
 <212> DNA
 <213> Homo sapiens

<400> 645
 gaattcgcg cgcgctcgac ggggaattact atctacctct tagtggtata tttggaatga 60
 atgaaataac acatggagag aatttagtac aatacctggc acatcatata catgttttaa 120
 gtagttctta tgcctgtatt gaagttatca atgatgaact tggagattgg caggggaata 180
 agaaagaggg ttggcagaga tgttgagaag gttgaattga caggcagtgg ctgtctggat 240
 gttagggcaa ggctcgag 258

<210> 646
 <211> 174
 <212> DNA
 <213> Homo sapiens

<400> 646
 gaattcgcg cgcgctcgac gcaattcttc gctgaagtca tcatgagctt tttccaacte 60
 ctgatgaaaa ggaaggaact cattcccttg gtggtgttca tgactgtggc ggcgggtgga 120
 gctcatctt tcgctgtgta ttctcttttg aaaaccgatg tgatccttct cgag 174

<210> 647
 <211> 201
 <212> DNA

<213> Homo sapiens
 <220>
 <221> unsure
 <222> (92)

<400> 647
 gaattcgagg ccgcgtcgac gtaaaaagat tetaacagga aggaggaggg tgtaataaaa 60
 tagaaatggc atctctagaa ataatgttca tntttaagat tgattatagg gaggaanaatg 120
 aaacacaatg agcctttcaa aaaataagtc atgagacttt gggcaaaaaa caaacaaata 180
 aatatgaggt caactctcga g 201

<210> 648
 <211> 198
 <212> DNA
 <213> Homo sapiens

<400> 648
 gaattcgagg ccgcgtcgat ttttgccatg aatgggaaaa gttttttttc tctttttttc 60
 tttttcgtgt ttttttcttt tgtttcaaat tcttctcttg gctcattgct cttaatgctt 120
 tgtctcccta aaagaggtag ctatgtaaaa acggaagtat ctggccctac gcagtggaaa 180
 aagggactaa cactcgag 198

<210> 649
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 649
 gaattcgagg ccgcgtcgac gcaatttgaa tataatatgt ctaggtgtag ctttctctct 60
 ttttttagca tttttctgct ttggtatttt cttagcttct cgaatttggt gttggtatcc 120
 gacattgatt tagaggaaat tcacagtcac tattgcttta aatatttctt tctgttccct 180
 cttctctctg ttttctctgt acatgtacac ctcgag 216

<210> 650
 <211> 157
 <212> DNA
 <213> Homo sapiens

<400> 650
 gaattcgagg ccgcgtcgac cctaatacaga aggcattgtt ttagtatttc ttgggagtgt 60
 cagctgtata atgcagcagc tgttcaatcc cttacccttc tctgcaagga cttccttaca 120
 gcttggtgca gttctttccc agaggccacc actcgag 157

<210> 651
 <211> 158
 <212> DNA
 <213> Homo sapiens

<400> 651
 gaattcgagg ccgcgtcgac aatcatttca gatttccagg aaagtggcaa aaatatcata 60
 aagaaatc tacccttcac tcagattccc aaatgttagc acttcgccac atctgcctca 120
 ctctctcttc tctctcttca cacacacaca cactcgag 158

<210> 652
 <211> 227
 <212> DNA
 <213> Homo sapiens

<400> 652

```

gaattcgcg cgcgctcgac agcccatgaa agattccaga acagagtttt gtaggtaaag 60
ttaagtgtat tacctggaaa gtctgttcca tgttgataaa cccaagtcct gaagaaggaa 120
agttgtgtgt tcaagggtatt ttccttctct gtctctttct ttctctctgt gatgcacaca 180
aacacacaca tatacacata caatctctga attcactcaa actcgag 227

```

```

<210> 653
<211> 265
<212> DNA
<213> Homo sapiens

```

```

<400> 653
gaattcgcg cgcgctcgac ctttcccatc cctagattcc tttgtgctgc ttgtctacat 60
tgtatgataa acatcacatt aaatgcaatc tctccctccc caccctctct ttttttttga 120
gataggatct cgcttgctgt gttgccagg ctgcagcgca gtggtgtgga tcytggtcca 180
ctgcagcttc accgtctggg ctcaagtgat cctcccccag agcctccact tcccagtacc 240
cgggactata gacacgtacc tcgag 265

```

```

<210> 654
<211> 240
<212> DNA
<213> Homo sapiens

```

```

<400> 654
gaattcgcg cgcgctcgac gtgaggttga gggtccttcc atatatccac gggctgttta 60
tgtttatttc ctgtgagcta gctcttgata tctagtccc tgatgcttcc ccaagaaaaa 120
ttccataaat attttcacag gattgtgtta aattcctaga ttaatttggg aagaactgat 180
tttatgttgc atctttttat ccaagaacct gttatgttcc tccatttgtt caacctcgag 240

```

```

<210> 655
<211> 190
<212> DNA
<213> Homo sapiens

```

```

<400> 655
gaattcgcg cgcgctcgac gtgagacctt gtctcaaaaa cagaacaaaa agcaaaacaa 60
ctgtattagg ggcagatgt ggtgggtcat gcttgtaatc tcagtgtttt gggaggttga 120
gatgggagga ttgcttgaag ccaggagtcc aagaccagcc tggggaacaa ccaaacccgt 180
tctccctata 190

```

```

<210> 656
<211> 164
<212> DNA
<213> Homo sapiens

```

```

<400> 656
gaattcgcg cgcgctcgac tgatttttta aatatatgtc ctttattaaa aatatatgaa 60
gtgcaatgaa agacaaaaac tgtgcattcc tcattgtagc acctattttt aaggttccc 120
tatctgagtc agctcagctc ttgatgtggg cggaaagtct cgag 164

```

```

<210> 657
<211> 172
<212> DNA
<213> Homo sapiens

```

```

<400> 657
gaattcgcg cgcgctcgac caacagggaa acaggagtgt catcaaaagt aaattccagc 60
cgagacattc tctcctatat gagaagcaaa agtgaaagga aaaatttctg aaaagtaaaa 120
cactgaagag tcatagtatt ctctgtaac ttggaactgg agtgggtctcg ag 172

```

```

<210> 658

```


<211> 165

<212> DNA

<213> Homo sapiens

<400> 658

gaattcgcg cgcgctcgac aaataaagta gggatgccat ctgctatatt caaatgtcct 60
 tgcagattgt tttttctaatt cttatgggtca tattctgata ttcttaaatt agatagtgat 120
 tgctatgtta acacagagca gatagtatct gcacaatgcc tcgag 165

<210> 659

<211> 272

<212> DNA

<213> Homo sapiens

<400> 659

gaattcgcg cgcgctcgac cacacacaca taacacacata tatatatata accttataaa 60
 gtatcatgta atatttttta taatttatct ttaattccaa taactagggtt acatagattc 120
 taaagtcttg aatcctatag gcaagtgggt caattatttt atccatgtcg tctagatacc 180
 tccttatttc taaatattat ttcttaattt tttcaatatt agatgttggt attgattgtc 240
 tcacagatgc catccctaatt gacgtactcg ag 272

<210> 660

<211> 253

<212> DNA

<213> Homo sapiens

<400> 660

gaattcgcg cgcgctcgac taggtttagt tgtcttaaca aaaaccagtc gaggaaaagt 60
 ttttagttta gcagaatact aaataaaaat attaatccag gctcagatat cttttgtttt 120
 gatccctttg aaagtcagaa ctggttttgt ttaggagtat tttatgtatt tgatttttat 180
 tcttaactat tcccttatga tggtagctgt tctttcagca aacagttatt ttgtgcttat 240
 tgcgtgcctc gag 253

<210> 661

<211> 283

<212> DNA

<213> Homo sapiens

<400> 661

gaattcgcg cgcgctcgac cgattgattt cgctagtact ttccaaaaat actaaacaat 60
 aagatagtag tggagctttg tcttattcct tacttcaatc agatattttt aatgcttttc 120
 tattaagatt agatctgggt ttagattgaa gcgtacatat tttatcatgt taaagtattc 180
 agctgttact gtttttttaa agtttttgct ttgttttgct tttgtttttt gttttttttt 240
 gaggcagagt ctcactctgt tgcttaggct ggagcgactc gag 283

<210> 662

<211> 120

<212> DNA

<213> Homo sapiens

<400> 662

gaattcgcg cgcgctcgac ttgaattcta gacctgcctc tcacctggac cactggagga 60
 accttctgat tgggtcccat gctttcactc ttgtcccacc tatttctcca cgcactcgag 120

<210> 663

<211> 244

<212> DNA

<213> Homo sapiens

<400> 663

```

gaattcgcgg ccgcgtcgac aactgcaatt acttctgtac caacctataa gtttgccttag 60
tggtttttatc atgaaaaggc attagatttt taaaatgttt tttctgtctg ttgagggttat 120
cgtgttatttt tgctttgttg tattattgtg gtgtataatt ttttttgaga cgggggtcttg 180
ctctgtcgcc caggctggag tgcagtggcg cgatctctgc tcactgcaag ctccacatct 240
cgag 244

```

<210> 664
 <211> 193
 <212> DNA
 <213> Homo sapiens

```

<400> 664
gaattcgcgg ccgcgtcgac taaactcctg agctcaagtg atccttctac ctggggctcc 60
caaagtactg gtattacaga cgtgagccat ggcgcccagc ctgtctctgt gttttaacct 120
tcatttagta ttagtcttac aaatgattac ttatttaatg ctcaatacta gtctctgtgt 180
cagtatcctc gag 193

```

<210> 665
 <211> 329
 <212> DNA
 <213> Homo sapiens

```

<400> 665
gaattcgcgg ccgcgtcgac cctcctcttc tgtcaccagt gccctcgccc cctccgatgt 60
catcacctca cccgggttcc ttaccgtctt catttgcacc tgaaactctac tttggagaat 120
atacagattc cagcgataat gactcagtgc agcttagaaa ttctgtctgag tctgtttcag 180
aagatgatac aactgaatca cagaattatt ttggctcatt gagaaaaaat aaaggaagtg 240
gcacatggga ggaaaaagccc aaatcacatg aagctatcca agctctgaat acatgggaag 300
taaataaagt gacaacttct ggactcgag 329

```

<210> 666
 <211> 189
 <212> DNA
 <213> Homo sapiens

```

<400> 666
gaattcgcgg ccgcgtcgac tgcagtggatg tgtatgtgtt tgtccccagc caaaatgacc 60
ttctctgtgt ccattattct gttatgtgct cattactgtc ccacctccat gcctttcccc 120
aggggtgttc ttaacctctg aatgtctcatt tccccctctt tatctctctg tgtaaacccc 180
aaactcgag 189

```

<210> 667
 <211> 218
 <212> DNA
 <213> Homo sapiens

```

<400> 667
gaattcgcgg ccgcgtcgac tatacattca gaaaagtaca tagttcagt ctttttctac 60
taagtgaatg catctgtctt taaaaagtga ccacccccat aacagaaaat agaattgtac 120
cagcattcca aagacccctt ctctgttacc tctccctcct tctccaagcc acactccttt 180
ctgacttctg tcaactataga tcaattggcc aactcgag 218

```

<210> 668
 <211> 129
 <212> DNA
 <213> Homo sapiens

```

<400> 668
gaattcgcgg ccgcgtcgac cctcatcttg cgcattttta ttgcaagatc acaaatggca 60
agaaaatatct ggtactttgt ggttagtcct tgttacaagt ttttgcata cttccgagca 120

```

acactcgcgag

129

<210> 669

<211> 251

<212> DNA

<213> Homo sapiens

<400> 669

```

gaattcgcgg cgcgctcgac cagtctgggt gtgggtggcg agtctgcggc cgttcccgcg 60
gcctcctcct cctcccggtt ccttcacccc ccaccccgca cccctttccc catcccggt 120
ccgtcacccct cccgtccccc acactcagga caagaatgcc ctgccgggaa caaccagca 180
gcgccatagat ggctttggtc acgggtccagc ggtcacctac cccagcacc acctccagcc 240
cgcaactcga g 251

```

<210> 670

<211> 175

<212> DNA

<213> Homo sapiens

<400> 670

```

gaattcgcgg cgcgctcgac ccttatgcca aaatctccct atcattaaaa tacaacaccc 60
caaccctagc aaaaccattc ctgataccac gtgttgctat tatccactat ctctcctcca 120
gtcctatcaa aacttgggtt tgctgtttct gatgctatta ttgtctctgc tcgag 175

```

<210> 671

<211> 211

<212> DNA

<213> Homo sapiens

<400> 671

```

gaattcgcgg cgcgctcgac cttgcctggc aggagtggct tctaagaaga gctgttgatt 60
gttgaacttt gacgctaagg cgagggtttg gatTTTTTgg ggatagcttt attttggtat 120
aatttttagaa aagtttgaga atagtacacg agttcctatt tacccttcac ctagagtcac 180
gatgatttgc gttttgcccc atttactcga g 211

```

<210> 672

<211> 296

<212> DNA

<213> Homo sapiens

<400> 672

```

gaattcgcgg cgcgctcgac caccagacca gttctgtgcc tccatctgtt ttctgacttg 60
tgcgatcggt tggcagcccc atcagctgct acctcctctt tgtctctttg cccgtgtgtt 120
tatgctattc aaagtacctc tattttaatg gagttttggg acctatcaaa tataaatata 180
ccatttcctc aagaccattt ttcttttcta accagtaaat ttatatggca tttatttttt 240
cttacagaag cttccttttt ttctctctct tctttctttt tttggaggct ctcgag 296

```

<210> 673

<211> 176

<212> DNA

<213> Homo sapiens

<400> 673

```

gaattcgcgg cgcgctcgac gagatgaatc caggctataa catttaacaa gaccttatta 60
aaagcttcaa gatgttagcc tttatctggt ccatatctag cttacttggt tgtttttggg 120
ggatcacatg tctgtcctcc aaactggaaa cgtctaaact tccaggagta ctcgag 176

```

<210> 674

<211> 137

<212> DNA

<213> Homo sapiens

<400> 674

gaattcgcgg ccgcgtcgac cccatctatg aagaactgaa agaccgcagc cgtagaagaa 60
tgatgaatgt gtccaagatt tcattttttg ctatgtttct catgtatctg cttgccgccc 120
ccatcctctg cctcgag 137

<210> 675

<211> 202

<212> DNA

<213> Homo sapiens

<400> 675

gaattcgcgg ccgcgtcgac agcattttta gctttgtaca ttcaaagtca tgcatacttc 60
tgagaggtcc tttaatgtga agattttttg cttgcatcac ttctcttga acatcttcat 120
cttctgtttg ctaatttteta cttttagtta tttatttttt aaattaaatg tcatatgggc 180
ttattattgg gatagcctcg ag 202

<210> 676

<211> 227

<212> DNA

<213> Homo sapiens

<400> 676

gaattcgcgg ccgcgtcgac aaaagaagtt aactagagt ccatgaaagt cactggactt 60
gaataaaaaat gaatatcttt ctctggacaa aagcagcact tcagattctg ttgatgaaga 120
aaatgttcct gagaaagatc ttcattggaag actttttatc aaccgtattt ttcatatcag 180
tgctgacaga atgtttgaat tgctctttac cagttcacgc tctcgag 227

<210> 677

<211> 556

<212> DNA

<213> Homo sapiens

<400> 677

gaattcgcgg ccgcgtcgac agttggaaag cttgcagcat ctggatcaat tacaatgcaa 60
gaacattgga gctatgtcaa gctacctctt catagtgaat tatgagttgc ctttggtgat 120
ccaggcatta acgaacattg aagataaaac tggattgtgg tatctgaacg ggaactattt 180
ggttctgttg gtgtcattgg tggcattctt tctttgtcgt ctgttttagaa atttaggata 240
tttgggatat accagtggtc tttccttgtt gtgtatgggt ttctttctga ttgtgggtcat 300
ttgcaagaaa tttcaggttc cgtgtcctgt ggaagctgct ttgataatta acgaaacaat 360
aaacaccacc ttaacacagc caacagctct tgtacctgct ttgtcacata acgtgactga 420
aaatgactct tgcagacctc actattttat ttccaactca cagactgtct atgctgtgcc 480
aattctgac ttttcatttg tctgtcacc tgctgttctt cccatctatg aagaactgaa 540
aaaccgcagc ctcgag 556

<210> 678

<211> 196

<212> DNA

<213> Homo sapiens

<400> 678

gaattcgcgg ccgcgtcgac atttgtttta ttcagatata gtttacatgc agtaaaattt 60
attctttttt aggttttgcag tttgatgagt ctgacaatgt atagtcatat aaccaacact 120
acagttgaga tatagaatat taccacagaa agttccctgt accttttagt gattctcttc 180
tccccacgt ctcgag 196

<210> 679

<211> 226

<212> DNA

<213> Homo sapiens

<400> 679

gaattcgcg cgcgctcgac tgcttttagta ataaattgcc taccagtttt gtaaagcttg 60
gtatatctta tttttctttt gacttttgc aaacacagaa gtaataaag cccctcgtat 120
ccaactagca gctcctcagt tatcaattcg tggcccatct catttcacct gctcttattt 180
tttagttttt cattttgtaa tgcttgtatt caacacagtg ctcgag 226

<210> 680

<211> 113

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (104)

<400> 680

gaattcgcg cgcgctcgac actaagggtg gagtcactgt gcccgccctg atgatttttt 60
tatcatatct gtgtttctgc agagtttttag tggctaaaga aagnacactc gag 113

<210> 681

<211> 196

<212> DNA

<213> Homo sapiens

<400> 681

gaattcgcg cgcgctcgac taagaatggt atgttatcaa aataccttta atagtcacct 60
tatagcactc tgctatttgt catccagttt tatgcatcaa acacaatata ccttttgggt 120
attcctaact gctcaatggc aaacacacgt tccagaatat agtcatggga tttacaacat 180
aatgacctgc ctcgag 196

<210> 682

<211> 226

<212> DNA

<213> Homo sapiens

<400> 682

gaattcgcg cgcgctcgac tgagaatggt ggtagtggtc agaagagtca aaaaatggca 60
gttaattatt cagttattcg ctacttggtt tttagcgagc ctcattgttt tttgggaacc 120
aatcgataat cacattgtga gccatattgaa gtcattttct tacagatacc tcataaatag 180
ctatgacttt gtgaatgata cctgtctctt taagcacaca ctcgag 226

<210> 683

<211> 196

<212> DNA

<213> Homo sapiens

<400> 683

gaattcgcg cgcgctcgac taaaatacag ttgaagattt ggcctgattt ttgccttacg 60
attacatacc ttaataatta caactcaatt gaggggtcca tatatattct ttctcatttt 120
ctggcagtaa atcatattca tcatatactt cccaattttg cacacacaaa aaatgaaaat 180
agccccctat ctcgag 196

<210> 684

<211> 193

<212> DNA

<213> Homo sapiens

<400> 684

gaattcgcg cgcgctcgac aactttatcc caaaagtagt gcatgtggag aaagaatcta 60
 gactttcttg tatacatttt tctcttctcc agtaataaac aattaccttc catttatact 120
 ttgataacct gtatttcaatt taaaaaaaaa cataaaaatg aggaaccaag tgaaactacg 180
 gatattcctc gag 193

<210> 685

<211> 258

<212> DNA

<213> Homo sapiens

<400> 685

gaattcgcg cgcgctcgac acttctgact ctgtcagtat tccctatccc tgctcctgat 60
 ttctttcttt tcatagccgt cgccttaaca cacattctac atttgactta tttttctttt 120
 taatcatcta cgtccctcca ctaggctgta aactacagga tgacaaaggt tttgtctgtt 180
 tttttcattg ctggctgttc aatatcctaat ctagtgcctg gcatgtcatg gacaattaat 240
 aaatgtgaac acctcgag 258

<210> 686

<211> 197

<212> DNA

<213> Homo sapiens

<400> 686

gaattcgcg cgcgctcgac gtattaatag tattcctaatt gtgtgctgca gaaatggcta 60
 tgagcctctt aaattttacat ttgcaactta aaggtagttt tagaagggaag tacaaattgg 120
 ctttcatctt gcaacaacatc gttttttaat tcattatctt aatttgcttt gtcactcata 180
 aaaaggaaac actcgag 197

<210> 687

<211> 304

<212> DNA

<213> Homo sapiens

<400> 687

gaattcgcg cgcgctcgac agaagtaaag atcctgaata acttctcaag gttatagtca 60
 cacagctagt aagaagcaaa gtggcattct taataacctcc caccattaaa aaaaaaaaaa 120
 gtggttatag caaagtatac actagaataa tttgagttgt ttgagatgga tacagggtatc 180
 tcttttttta aatttagtagg tacaaaacaaa gaacttgaaa accacatcct ttttagattct 240
 ttgttggttc taggagtgtg tttcaagggtg gttagtaatt tgtgtttccc tgggccatct 300
 cgag 304

<210> 688

<211> 156

<212> DNA

<213> Homo sapiens

<400> 688

gaattcgcg cgcgctcgac gttaaaccct ggctaatttt attgtctttt tgtagagatg 60
 ggatttcacc atottgccct ggctgttctt gaactcctgg gctcaagctg tctcccgcgc 120
 tcaagcctcc cgaagtgtct ggattgcaga ctcgag 156

<210> 689

<211> 329

<212> DNA

<213> Homo sapiens

<400> 689

gaattcgcg cgcgctcgac atgggacaga gtccaagcat gatgggtggg atgcccatgc 60
 ccaatgggtt tatgggaaat gcacaaactg gtgtgatgcc acttcctcag aacgttggtg 120
 gcccccagg aggaatgggt ggacaaactg gtgcacccca gagtaagttt ggcctgcccg 180

aagctcagca gccccagtg agcctctcac agatgaatca gcagatggct ggcagtagta 240
 tcagtagtgc aacccctact gcagggtttg gccagccctc cagcacaaca gcaggatggg 300
 ctggaagctc atcaggtcat tctctcgag 329

<210> 690
 <211> 191
 <212> DNA
 <213> Homo sapiens

<400> 690
 gaattcgagg ccgcgtcgac gttaaacttt acatttttaa ttaatttatg tttgtatgta 60
 tttatttggg gagaaagggt ctctctctgt caccctact agaatgcagt ggcgccatca 120
 tggcttactg ctctctgggc tcaagctgtt ctcccatctc agcctcccca tgcaccacca 180
 tcatgctcga g 191

<210> 691
 <211> 173
 <212> DNA
 <213> Homo sapiens

<400> 691
 gaattcgagg ccgcgtcgac atactgtata atttgggtga ggtctacaaa attgggtgtg 60
 actttctctt gcaaatggat ttctctctgg gaattttctt ggtgttctg gaaatgcttt 120
 cccacagctg ggtaactgtt ctaaatggct ttgataatgc tcacacctc gag 173

<210> 692
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 692
 gaattcgagg ccgcgtcgac gtgatttata atgacatcct gagaaaagtc agtgaaactc 60
 attttctaag aataccagat ttcttaaaat agtcaagtat tttctctttg tgtatgatga 120
 gatattaact tgggtgttatt tcattttttt tttttaagga gtcattctac cctgttctat 180
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 tcaggggaagt aagttcacca aggtcagaca aatagcaaa gctgagacga cacaaactta 180
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<400> 698
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 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 699
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 <212> DNA
 <213> Homo sapiens

<400> 700

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<210> 701

<211> 214

<212> DNA

<213> Homo sapiens

<400> 701

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<210> 702

<211> 286

<212> DNA

<213> Homo sapiens

<400> 702

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 cctgttccca ttcttggta cagctctagc cacagcagaa ggaaaggggc ttccagaaga 240
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<211> 158

<212> DNA

<213> Homo sapiens

<400> 703

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<210> 704

<211> 439

<212> DNA

<213> Homo sapiens

<400> 704

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<210> 705

<211> 192

<212> DNA

<213> Homo sapiens

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 aagtgtctggg taaccaggaa tcagaacctc tggaggacga gtatgacttc tttctgtcc 180
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<210> 706

<211> 205

<212> DNA

<213> Homo sapiens

<400> 706

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<210> 707

<211> 279

<212> DNA

<213> Homo sapiens

<400> 707

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<210> 708

<211> 228

<212> DNA

<213> Homo sapiens

<400> 708

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 tcaacaggac tgtccgtgct atctccacca gcagggcccc gcggagctcc ccccgctgcc 180
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<210> 709

<211> 189

<212> DNA

<213> Homo sapiens

<400> 709

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 aatcaaagaa gcgtataga aatgaaggga gtcccagccc tagacagtcc ccgaagcgcc 180
 caactcgag 189

<210> 710

<211> 293

<212> DNA

<213> Homo sapiens

<400> 710

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 tcttgtcgga ggtccctgaa agtgaattaa ctttggatct cttaggatc tgtgttttga 240
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<210> 711
 <211> 143
 <212> DNA
 <213> Homo sapiens

<400> 711
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<210> 712
 <211> 195
 <212> DNA
 <213> Homo sapiens

<400> 712
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 gtcggcatca tcgagataaa gaaagacagt ctccatttca tggcaaccat gcagctatta 180
 accagtgtcc tcgag 195

<210> 713
 <211> 170
 <212> DNA
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<400> 713
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<210> 714
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<400> 714
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<210> 715
 <211> 200
 <212> DNA
 <213> Homo sapiens

<400> 715
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 aattaatccc ttttaacaaa agccgtctat gggattaaaa gacacgtgaa atgatacttt 180
 tattattccc attactcgag 200

<210> 716
 <211> 232
 <212> DNA
 <213> Homo sapiens

<400> 716
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<210> 717

<211> 332

<212> DNA

<213> Homo sapiens

<400> 717

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gaatcggttg tatttcattt gaaggaaact tgaacacact cagctgtgac cccggtcaca 300
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<210> 718

<211> 155

<212> DNA

<213> Homo sapiens

<400> 718

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tgctaattgta cctcaagatg gagaagatgc tcgag 155

<210> 719

<211> 188

<212> DNA

<213> Homo sapiens

<400> 719

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gagagccttt tcagaagaaa cttcaaatgt gtgaaccagt ggagttagaa aaccccccat 180
cactcgag 188

<210> 720

<211> 176

<212> DNA

<213> Homo sapiens

<400> 720

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aaattcaaaa aatcctgatg aagggttggc taaaatcttt ggtgagctac ctcgag 176

<210> 721

<211> 226

<212> DNA

<213> Homo sapiens

<400> 721

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ggttagggct gaagttattc tcattaatat tcatcattag tggatatctg ttccatttac 180
tataaaacac attgcatcaa tgcactttaa aaaaatctta ctcgag 226

<210> 722

<211> 222

<212> DNA

<213> Homo sapiens

<400> 722

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<210> 723

<211> 184

<212> DNA

<213> Homo sapiens

<400> 723

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<210> 724

<211> 304

<212> DNA

<213> Homo sapiens

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 cgag 304

<210> 725

<211> 234

<212> DNA

<213> Homo sapiens

<400> 725

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<210> 726

<211> 160

<212> DNA

<213> Homo sapiens

<400> 726

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<210> 727

<211> 335

<212> DNA

<213> Homo sapiens

<400> 727

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<212> DNA

<213> Homo sapiens

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tcgag 425

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<210> 729

<211> 137

<212> DNA

<213> Homo sapiens

<400> 729

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tgaagctaga gctcgag 137

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<210> 730

<211> 196

<212> DNA

<213> Homo sapiens

<400> 730

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ggcgggtgg ctcacgcctg taatggcagc actttgggag gccaaagtgg ttggatcacg 180
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<210> 731

<211> 439

<212> DNA

<213> Homo sapiens

<400> 731

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<210> 732

<211> 259

<212> DNA

<213> Homo sapiens

<400> 732

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<210> 733

<211> 231

<212> DNA

<213> Homo sapiens

<400> 733

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<210> 734

<211> 352

<212> DNA

<213> Homo sapiens

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<210> 735

<211> 241

<212> DNA

<213> Homo sapiens

<400> 735

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 g 241

<210> 736

<211> 465

<212> DNA

<213> Homo sapiens

<400> 736

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<210> 737

<211> 509

<212> DNA

<213> Homo sapiens

<400> 737

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gcactgatgg aatgagggtg acctcaagaa agtcagcaaa atatagactt caggggacta 300
tcccagagagg tgatgtctcc ttgacctct taaacccag tgaaagtgc agcgggtgtgt 360
actgctgccg catagaagtg cctggctggg tcaacgatgt aaagataaac gtgcgcctga 420
atctacagag agcctcaaca accacgcaca gaacagcaac caccaccaca cgcagaacaa 480
caacaacaag ccccaccacc actctcgag 509

```

<210> 738

<211> 343

<212> DNA

<213> Homo sapiens

<400> 738

```

gaattcgcgg cgcgctcgac gagctgggtg gtgggtgtgg agttggctgt gaataatgaa 60
ctgcagccaa tcatttgctt tggcacattc tctaaggtaa gatatgctta gtttcataatt 120
gtgtagcctg cagaactgca ccactaatgc ccattggctg ctagattcac tggataacct 180
ctttatttcc tgttgctgaa tgcgtgtcca tgtaccttct tctaagagaa caagcaattc 240
ttctgtggtt gtcttttccac catcagctag tttagatagt ttttgggcta cagactctct 300
gataaagctg tactgagcga ttgaattcga gacctgcctc gag 343

```

<210> 739

<211> 106

<212> DNA

<213> Homo sapiens

<400> 739

```

gaattcgcgg cgcgctgacg aggggttggg tgtttttttt cttcttttct tttaaataaa 60
aatgctgcaa ggtttccgcc tctgcgttcc cgttgtgctg ctcgag 106

```

<210> 740

<211> 479

<212> DNA

<213> Homo sapiens

<400> 740

```

gaattcgcgg cgcgctcgac cgggaaacca aaatggcgag gggtgtatt gaagtgggct 60
gtgtttgagg ccggtgtaag aacgctcatt ctaccccaaa cccttgtctc caaggacctc 120
ggttttgtgc tgcatatgtg ccgggtaccc ggtggggcgg gtgccagta agtgctcgga 180
ctcgcagggg aagcgccac ggggacggat tggttgtttt ttcctgtatg aagcggtttg 240
caccactgaa gtgaccgaat gaggtgagag accttggcct gggaaaccgac tcttccggag 300
gagatggggg ttgggggaag gaggaagaaa gaaagcaagt ataaaaggga aagatggagg 360
accaaggtgg ggggtggggc tctgtatgt ggggtgcctt gcatttatgt gtatattgaa 420
aagaatggat gaagaggagt agtcagttga gtgttgggg aaaaatgaga ctactcgag 479

```

<210> 741

<211> 195

<212> DNA

<213> Homo sapiens

<400> 741

```

gaattcgcgg cgcgctcgac gtgtcccttt ctctaaaaat aagtacagat cacattcctg 60
ttttcgaaaa tgatagycaa aagttgggga acattacatg atatccaaaa cacgtttatt 120
ctatatctgt gtttcagatt tcattcttta gcacttgggt tacgagttac tgtgctaact 180

```


ccacaaactc tcgag

195

<210> 742

<211> 592

<212> DNA

<213> Homo sapiens

<400> 742

gaattcgcgg ccgcgtcgac cccattggct gaagatgaga ccattcttcc tcttgtgttt 60
 tgccctgcct ggcctcctgc atgccaaca agcctgctcc cgtggggcct gctatccacc 120
 tgttggggac ctgcttgttg ggaggaccgc gtttctccga gcttcatcta cctgtggact 180
 gaccaagcct gagacctact gcaccagta tggcagtggt cagatgaaat gctgcaagt 240
 tgactccagg cagcctcaca actactacag tcaccgagta gagaatgtgg cttcatcctc 300
 cggcccatg cgtgtgtggc agtcccagaa tgatgtgaac cctgtctctc tgcagctgga 360
 cctggacagg agattccagc ttcaagaagt catgatggag ttccaggggc ccatgccgcg 420
 cggcatgggt atttgagcgt cctcagactt cggtaagacc gggggagtgt accagtacct 480
 ggtcgcggac tgcacctcca ccttccctcg ggtccgcag ggtcggcctc agagctggca 540
 ggatgttcgg tgcagtcctc tgcctcagag gcctaattga caccaactcg ag 592

<210> 743

<211> 367

<212> DNA

<213> Homo sapiens

<400> 743

gaattcgcgg ccgcgtcgac gtgacctggg ataaattcct taagttcttt ggtgtttctt 60
 catctttttt taaataatag ctttattgaa gtatacagtc atgttgagaa atgcgtcatt 120
 agacaatttc gtacatgcgt gagcaccaca gagtatactt atattaaccg agaggtataa 180
 cctacccac acctaggcta tatgatatag tctattgtcg ctagtctgca aacatgtgca 240
 gcatgttact gtactgaata ctgtaggcaa ttgtagtaca atggtatttg tttatctgaa 300
 catatctaaa ctaacaaaag tacagaaaaa tgtgatataa cagattttaa aaaggtacgc 360
 gctcgag 367

<210> 744

<211> 655

<212> DNA

<213> Homo sapiens

<400> 744

gaattcgcgg ccgcgtcgac tccaaatgag aaaaaagtgg aaaatgggag gcatgaaata 60
 catcttttct ttgttgttct ttcttttgct agaaggagc aaaacagagc aagtaaaaca 120
 ttccagagaca tattgcattg ttcaagacaa gaagtacaga gtgggtgaga gatggcatcc 180
 ttacctggaa ccttatgggt tggtttactg cgtgaactgc atctgctcag agaattggaa 240
 tgtgttttgc agccgagtca gatgtccaaa tgttcattgc ctttctctcg tgcattatcc 300
 tcatctgtgc tgcctctgct gcccagaaga ctcccttacc ccagtgaaca ataagggtgac 360
 cagcaagtct tgcgagtaca atgggacaa cttaccaacat ggagagctgt tcgtagctga 420
 agggctcttt cagaatcggc aacccaatca atgcaccag tgcagctgtt cggagggaaa 480
 cgtgtattgt ggtctcaaga cttgccccaa attaacctgt gccttccag tctctgttcc 540
 agattcctgc tgcgggtat gcagaggaga tggagaactg tcatgggaac attctgatgg 600
 tgatatcttc cggcaacctg ccaacagaga agcaagacat tcttaccac tcgag 655

<210> 745

<211> 268

<212> DNA

<213> Homo sapiens

<400> 745

gaattcgcgg ccgcgtcgac cattgtcaaa cttgaccttt taaataatct gatttaactc 60
 ctttttaatt taaatcctgt ttttaattcat gacactggaa gctatatata taataacctt 120
 tttttcattt tttagtgtga caactagtgg tttgaagagc cagggccgtc tgtcagtagg 180

aagtaatcgt gatcgagaga tcagcatgtc tgttggtctg ggaagatcac aattagattc 240
 taaaggagga gtagttggag ttctcgag 268

<210> 746

<211> 181

<212> DNA

<213> Homo sapiens

<400> 746

gaattcgcgg ccgcgtcgac ataagttaaa gatgtatagc gtgtataata ccttactata 60
 ccttatcata gtgattcacc ttaccatagt gaaccttaaa atagtatact tctggccagg 120
 cgcggtggct tacgcctgta atcccaacac tttgggaggc agaggtgggc cgaacctcga 180
 g 181

<210> 747

<211> 694

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (35)

<400> 747

gaattcgcgg ccgcgtcgac ataaaaagaa aagtnagggg ggtattgaaa tcgttaaaga 60
 gaaaacaact aggagcaagt caaaggagag gaaaaaatct aaaagcccat ccaaaagaag 120
 taagtctcaa gatcaagcaa ggaaatcaaa atcccctacc cttagaaggc gatctcaaga 180
 gaaaattggg aaggccagat ctctactga tgataagggtt aaaattgaag ataaaagtaa 240
 atcaaaagat agggaaaaat ccccaattat aaatgaaagt agaagtcgag atcgaggtaa 300
 aaaatccaga tcccagttg atttaagagg taaatccaaa gacagaaggc caccgtccaa 360
 agagagaaaa tcaaacgggt ctgaaactga taaagaaaag aagccaatta aatctccctc 420
 taaagatgct tcatctggga aagaaaatag gtcaccagc agaagacctg gtcgtagtcc 480
 taaaagaaga agtttgtctc caaaaccacg tgataaatca agaagaagca ggtctccact 540
 tttgaatgat agaagatcta agcagagcaa atcccctcg cggacactgt ctctggggag 600
 aagagccaag agccgatcct tagaaagaaa acgacgagaa ccagagagga gacgactttc 660
 ttctccaaga tccccttaag aacacgacct cgag 694

<210> 748

<211> 714

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (672)

<400> 748

gaattcgcgg ccgcgtcgac cataaagtta attctcataa tttttgctgg gtttaataat 60
 tcaaaatatg aatcaaaaatt tttatttatg cagtttcatt ctattaaaat tatctgctaa 120
 attaatatta agtagtccta tagcatatat tatttaataa ttgcaagtag tgacatatca 180
 taaataaact gtataatatg tattattgat tctgttattt tatttttctt agcaatgcac 240
 aggggaaccag taaatttcac aagcagagaa tactaacttg tcatttattt aatattctaa 300
 acaaatgaag ccgcctctat aagtgaattt tctggacttc taaagatgag cattgttgag 360
 tttataaact caaattttta ttgtgttaag taaagtatat taaatataac ctaccctaa 420
 tgactcagct gtaattaaaa aagaattcac gaccagcctg ggtaacacgg tgagacccca 480
 tctctacaaa aataaaaaat aaaaatgaaa attaaaaaaa attagccagg catggtggca 540
 tatacccaag tactctgaag gccgagggtg gaggattgct caaacctagg agtccaagge 600
 tgtagtgacc tgtgatagtg ccactgtact ccagcctggg aaacagagca agaccctgtc 660
 tcttaaaaaa cnacaacaaa cctacacatg aaaattattg ctgcttccct cgag 714

<210> 749
 <211> 466
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (25)

<220>
 <221> unsure
 <222> (230)

<400> 749
 gaattcgcgg ccgcgtcgac gtgtnggaga aaaaactgct gagaagccaa agaaactgcc 60
 accacagggg agacagagtt tgttgttcaa atcccaccaa gtagaggagg gcttggtaaa 120
 cacottgggt tttccaetga aacttcaaaa agatgggtca tgcttttagaa gtaaagattg 180
 agtttaaat aaggacagaa aaatattgat tggatttgcc tttttgaccn actcaggaac 240
 aatttcgggt taggaatggg tatgggagag agagagaaga gcaggctaac gaaatagcaa 300
 acaactcttg agagagtctg ttgtatggag aaatagggtt gtatttggat ggggaagttt 360
 tgtttcttag gatggaagac actagagcaa gtctgttttt tggttttttt ttgagatgga 420
 gttttgcttt gttgcccagg ctggtgtgca gtggtgcaat ctcgag 466

<210> 750
 <211> 602
 <212> DNA
 <213> Homo sapiens

<400> 750
 gaattcgcgg ccgcgtcgac agtaacactt aactcttcta taagtaatag aatctattta 60
 gttttgaaga gtagtggata gattgcaagc tcattacctt gtttcacttt caaccagaac 120
 tggaagaaat attaatggg acaattacac taataatattg caaagtatac attttaagta 180
 ttttatgttc cagaacagct gccacatgtg atactataat caatctaata gaaataaaag 240
 tccacctctt cttagaacat aggttctcca ctggaggcag ttttgctccc caggggggatg 300
 ttgacaatgt ctggacacat ttttggtttt cacagcgggg ggagagaggg actgtgtgcc 360
 attggcctct agtggataga ggccggggat gttgctaaac atcctacaat gcagagaatc 420
 acccaactgac gacaatgaat tttctgtcc aaaacgttaa cagtaccaag attttggaac 480
 cctaccttaa gagtatacat aaggtaatgc ttttctaaaa ggtctgtgtt agagttgcat 540
 atgtatccag caacatgtga gccctaggac agggctttgc ccataatacc ccctcactcg 600
 ag. 602

<210> 751
 <211> 353
 <212> DNA
 <213> Homo sapiens

<400> 751
 gaattcgcgg ccgcgtcgac gattaaagga tttacctgaa gagaagcat tctattcatc 60
 agagactgga caagagttac tcttgcatth ggcaattaaa gatgatgttt ccattggaac 120
 agttgatcct gctttcattc attggctgct taggagggtga gcttctctta caaggccctg 180
 tatttatcaa agaaccacagc aacagcattt tccctgttgg ttcagaagat aaaaaataa 240
 ctttgcatth tgaagcaaga ggcaatccat cacctcatta cagatggcag ctgaatggaa 300
 gtgatattga tatgagtatg gaacatcgtt ataagttgaa tggaggactc gag 353

<210> 752
 <211> 265
 <212> DNA
 <213> Homo sapiens

<400> 752

```

gaattcgcgg ccgcgtcgac ggggcagggg taaattcgtt aaaataaaaag aaatctttat 60
taaaacccaaa tggcatggaa attttttaga gaattctcat agttatacta aacctgagga 120
aaaataacat aatattgact gtttaaagag aactctgttt tcaagcctgt aaaactaatt 180
gatataattt tctacctaga atttagatat tatgaaattt ttttttgtaa ttgttttttt 240
cttttaggatc acagtatcac tcgag                                     265

```

<210> 753

<211> 589

<212> DNA

<213> Homo sapiens

<400> 753

```

gaattcgcgg ccgcgtcgac cactttacct gtctgtaaga tggacatggt taggtctacc 60
catgaggggt atgtggggat tggagaaaat ggaagtaaag aactagtcca gagccaccct 120
tgggtgaaaag ccaactgtcat catcatttac catcgtcatt ctccatccca gccatccacc 180
caccacccgc cagcgtgctc ttcctctgtg accgatgtct cccgtgtagc catgaacctg 240
catgctcagg atgcagacga cggtttgagg agaggggtgc tgactgccgt gtgggactgc 300
atgtcagctt cccatgaagg ggcaccttgg gtgagctcac tgtttcctaa cggcatctgg 360
cattttctcc ttcccatctt gaccatgtca gttatcacca tcctacacga ctgctcactt 420
catttaaaaa aaccagttt gctttttttt aaacctttta tgtattctaa gtgatagaag 480
gtatggtctt ggtctacgat atgtttttta tttttcttga aatacataaa tattaaaata 540
aaattgtgct atgtttccaa ctaagatcat cttgaatctc accctcgag 589

```

<210> 754

<211> 360

<212> DNA

<213> Homo sapiens

<400> 754

```

gaattcgcgg ccgcgtcgac taagtacagc aaaaaagaaa gggggggaag aaaagaagaa 60
ggaagaggaa agggaggagg aggatttacc attcacttac actagaaaca gtgaaaatag 120
ataatagcta taattttact acatcttacc taaaacacaa attcagggtg atttatgagc 180
aagtcatttt ccgggtgggt ttcgatagtg tgtgaatttg gaatgaatgc tggtaacttc 240
agctcccttc cactgcagc accaggaagc cattgttgtg gggaggccac caacttggct 300
ggcatgttgc ttctgcctca gttagtgatg atggtgattt ggagagaaag gacactcgag 360

```

<210> 755

<211> 536

<212> DNA

<213> Homo sapiens

<400> 755

```

gaattcgcgg ccgcgtcgac gttgggatat ggggtggttg actaaagaat ggttccttct 60
tctaattcgc caaatttttc atccagatta tggcatgttt acatatcaca aggattcaca 120
ctgccatttg ttttagcagct ttaaattgtg taactattct gaattccgat tgggtggaat 180
tcttatggga ctagtgttt ataacagcat cactttggat attcgttttc ctccctgctg 240
ttacaagaaa ttattgagcc ctcccatcat tcctagtcat caaatatac cagtaggcat 300
ctgcaatgtt accgtggacg acttatgtca aattatgctt gatttggccc atggattaag 360
tgaactctta tcacatgaag gcaatgtcga agaagatttc gattcaacat ttcaggtttt 420
tcaagaagaa tttggaacaa tcaagtccta taatttaaag cccggtgggt acaaaatttc 480
agttaccaat caaatagaa aagaatatgt acagctttat accgactttc ctcgag 536

```

<210> 756

<211> 388

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (192)

<400> 756

gaattcgcgg ccgcgtcgac cgaaggtgga ggtggaagac cagggatgca cagctcagaa 60
 ggcaccaccc gtggtggggg gaagatgtcc cctacaccca actgctatgc ccagcgtac 120
 taccocatgc cagaagagcc cttctgcaca gaactcaacg ctgaggagca ggccctgaag 180
 gagaaggaag gngaagggaa gctggaccca gctgaccac gccgaaaagg tggccttgta 240
 ccggtccag ttcaatgaga cctttcgga gatgaaccgt cgctccaatg agtggagac 300
 agtgatgggt tgtgtcttct tcttcattgg attcgcagct ctggtgattt ggtggcagcg 360
 ggtctacgta tttcctccaa agctcgag 388

<210> 757

<211> 259

<212> DNA

<213> Homo sapiens

<400> 757

gaattcgcgg ccgcgtcgac cttagcactt caatttaaaa acatagaggt ggaattttta 60
 atgttatttt gagttgactt tggcaggctg aaagaaagta aattaaaaaa aaaaacaaaa 120
 acctagagct gttgtctctg gagataagct ctgggaaaac ttatcttagt acctcatgct 180
 atttttaaaa cagtacattt atttttgcaa gctgataccc ttctgtgagg agttgaattt 240
 gaagaacact ggcgtcgag 259

<210> 758

<211> 258

<212> DNA

<213> Homo sapiens

<400> 758

gaattcgcgg ccgcgtcgac gtcaccacgc ccagcccaag aaagatacat ttttaaaaac 60
 agctttattg tggataaatt gacgtaaaat gtacatactt aaagtataca gtgtgatgtt 120
 ttgatataata tgtatactct tgaaaccacc accacagtta aaataatgaa aatgtccatt 180
 acctccagaa gttttctcat gttttgttgt aatctctcct tctcctcctt gattcctccc 240
 catccccagg cactcgag 258

<210> 759

<211> 177

<212> DNA

<213> Homo sapiens

<400> 759

gaattcgcgg ccgcgtcgac agtatttaca gtttgactga cattgcttgg ctgccataa 60
 taaagtgttt tgcttgggtg ctattgaaatg ctttttaact tagtttttag acaattttgc 120
 aggctttatt taagcatggt gtattttgga ctgaggcaag tctttgcgga actcgag 177

<210> 760

<211> 166

<212> DNA

<213> Homo sapiens

<400> 760

gaattcgcgg ccgcgtcgac tgtaaatctt gtaattaatg gtcaaaactgt ataaagggat 60
 tggtagtcaa aacatgtaca aagaaatacc tgtaaaactg ttttgtctca tgttttattg 120
 gaccaaagt gtggtttgta tggagtgtag tagtagtgga ctcgag 166

<210> 761

<211> 208

<212> DNA

<213> Homo sapiens

<400> 761

gaattcgcgg ccgcgtcgac accaaateac gggactgttc agcacaaaga aactgaactt 60

gccaatgttt acagttctga gaaggttctc catcctgttt acaargtttg ctgaaggagt 120
 tttactcaag aagacttttt cttgggggtat taaaatgact gtatttgcaa tgattattgg 180
 agcctttgta gctgccagct ccctcgag 208

<210> 762
 <211> 289
 <212> DNA
 <213> Homo sapiens

<400> 762
 gaattcgccg cgcgctcgac aaacatactt gtttttaact ctcaggaatt tcatgaggaa 60
 caagtttaag ttttatatat atctatgrat gcttttcata aaccacaaat aagtttatac 120
 acttttagctg gaacttttta taatttcaga ggggttattg aactgactgt tggcattgga 180
 tataagaatt tggcttcagg catttgctat tgagggttta aaaatgttta aatatcttac 240
 tgaattttt ttgttttggt attcgggaca atgcagctgt aatctcgag 289

<210> 763
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 763
 gaattcgccg cgcgctcgac gaacagttag tagtaggggt aagatttggt ttcagatttt 60
 atttccaact agaagacca ttttaacact gttttggtta ttgtttgtag agagctttct 120
 aaataagtgg gtacctttat tatgattaag aaagtaattg actatgttgt aggatttcac 180
 acagaattat tgataagcac gctcgag 207

<210> 764
 <211> 358
 <212> DNA
 <213> Homo sapiens

<400> 764
 gaattcgccg cgcgctcgac gagaaggagg ggaacaagca gagactttta ctgggacaag 60
 taantcaagc cttcagcaac tcaaggaaaca aacatacaag acaagctcaa ctccctcgta 120
 agaccaaat aggataacac tacaagaaaa taaattgttt tatctgggtt tgggtgctttg 180
 gggatagtta attgactact caaataacaa ctttgatagt atatgaactg tgactgtggt 240
 agtaggtttt aatttagcagg aactttttgt aaattggaca aaaacttttt ttattatgac 300
 taggaaaact gctgttttct atttttgttt tgctctttta aataataccg aactcgag 358

<210> 765
 <211> 178
 <212> DNA
 <213> Homo sapiens

<400> 765
 gaattcgccg cgcgctcgac ctactgtttt ctgtgttata ctttgtgtta gtgcagagtg 60
 tttggtgtaa ctggctatcc ttttggaaac tttttgttat ttaataattt ttaattgttt 120
 acacattttt agaaagtatt cgttccgta taggatgatt gtatgggtct ttctcgag 178

<210> 766
 <211> 103
 <212> DNA
 <213> Homo sapiens

<400> 766
 gaattcgccg cgcgctcgac ttgaattcta gacctgcctc gagttgccta ctgatttcaa 60
 gtattacatg aagcttgtaa aaataacaag cagttacctc gag 103

<210> 767
 <211> 407

<212> DNA

<213> Homo sapiens

<400> 767

```

gaattcgcg cgcgctcgac ggcaagtctt aaaaactcga tttttatatt tatttgatt 60
tacttatttt gtttatttat ttgagacaga gcaagactcc gtctcaaaaa aaaagcaaaa 120
caaaaaacaa aacaaaaaca aaagagggtgc aggccagaat tgtccccgtg gacatagttg 180
gtcaattaga ttgcatactt taatccagcc tcagttgggtg tgtctgggtt ttctggctag 240
gaagaatgct gctgtggaat gtgctggaac agatccctac gtgcgctgtg ttggagtctt 300
tccagggtcag ggggtctcaa acggatttca ggacccttta catcatccag aatgatccaa 360
tagccccagg agcctgtgtc tgtgtggatt atatcgcgcg gctcgag 407

```

<210> 768

<211> 268

<212> DNA

<213> Homo sapiens

<400> 768

```

gaattcgcg cgcgctcgac gttcattgag gtttaagaga ataaaagaaa ccaaaaaaga 60
acttcacaat tctcccaaaa caatgaacaa aacaaaccaa gtgtatgcag caaatgagga 120
tcataactct cagtttattg atgattatc atctcagat gagagtttat ccgtcagcca 180
cttcagtttc totaaacaga gccacagacc aagaactata agagacagaa ctagtttttc 240
ttcaaaattg cctagccata aactcgag 268

```

<210> 769

<211> 372

<212> DNA

<213> Homo sapiens

<400> 769

```

gaattcgcg cgcgctcgac aaattactta taaatttttt atagtgtat ttttgacctg 60
ccttttatat gtatgaatat ttcatagttt tgcatatcag atgtaggcat acagacaaat 120
acataaacca atgaatatat tacatattct gtgttccaat aaaactttat ttatggacac 180
taaaatttga atttcataaa attttcccat gtcaagaata caaaatactt gagttttgtt 240
tttagctatt taataatagg tctcatttat tccacaggct gtagtttgta gtcttgcttg 300
aaacaataga aacagactga ttaagcagga gaagtttttt gaaagaattt tgtttggtc 360
agcaatctcg ag 372

```

<210> 770

<211> 126

<212> DNA

<213> Homo sapiens

<400> 770

```

gaattcgccc aaagaggcct agggggtaat ttacatatgg ggtgtatata ttctaaaaat 60
agtaataaaa gtacctttta taagcaatgt tgtgtggctt gtagaagaaa gcagggagga 120
ctcgag 126

```

<210> 771

<211> 311

<212> DNA

<213> Homo sapiens

<400> 771

```

gaattcgccc aaagaggcct agtagaactc aagaagacag actaccaagg gtcattctgaa 60
gtcgtgattg ggtcactaat aacaccagga caaagttaag ggtcactac tcaagcataa 120
gccccagttt tcataagact gctgtgaaga tgtttgatat aaaggcttgg gctgagtatg 180
ttgtggaatg ggctgcaaag gaccctatg gcttccttac aaccgttatt ttggccctta 240
ctccactgtt cctagcaagt gctgtactgt cttggaaatt ggccaagatg attgaggccg 300
ggaaactcga g 311

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<210> 772
 <211> 185
 <212> DNA
 <213> Homo sapiens

<400> 772
 gaattcggcc aaagaggcct aaagtcaaga acagtttttc actgcagctt ttagatatat 60
 tttggtcata tactgtttac acaattgccca attcttgcca aatttggtgt tgtgcatttt 120
 attttccctcc tttaatgtac tgctctgcaa ttatgcttgt aaaatgtttt tctgttcac 180
 tcgag 185

<210> 773
 <211> 262
 <212> DNA
 <213> Homo sapiens

<400> 773
 gaattcggcc aaagaggcct atggtgaccc agccagataa tagtatcttg agcaaataat 60
 agtatcttga gtgcaaataa gcaggaagac tgtccttcaa aaaatgtggg gttacatgat 120
 tttcagagcc tttttttcag agttgagcat cttttctttt aaaagaaata aggggcaaga 180
 ggaccaattt tattccttga ggaaaaatga cacacccttc tcccaaaaga aagaaaactc 240
 tetggccccc ccccttctcg ag 262

<210> 774
 <211> 430
 <212> DNA
 <213> Homo sapiens

<400> 774
 gaattcggcc aaagaggcct acacagactc ttgcaagctg gatgccctct gtggatgaaa 60
 gatgtatcat ggaatgaacc cgagcaatgg agatggattt ctagagcagc agcagcagca 120
 gcagcaacct cagtcccccc agagactctt ggccgtgatc ctgtggtttc agctggcgct 180
 gtgcttcggc cctgcacagc tcacgggagg gttcgatgac cttcaagtgt gtgctgacct 240
 cggcattccc gagaatggct tcaggacccc cagcggaggg gttttctttg aaggctctgt 300
 agcccgattt cactgccaag acggattcaa gctgaagggc gctacaaaga gactgtgttt 360
 gaagcatttt aatggaaccc taggctggat cccaagtgt aattccatct gtgtgcaaga 420
 agatctcgag 430

<210> 775
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 775
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 aaaaaacgta aaggggtattc gagatgacat tgaaggaggaa gatgaccaag aagcttattt 120
 tcgatacatg gcagaaaacc caactgctgg tgtgggtcag gaggaagagg aagacaatct 180
 agaatatgat agtgacggaa atccaattgc agttctccct ata 223

<210> 776
 <211> 243
 <212> DNA
 <213> Homo sapiens

<400> 776
 gaattcggcc aaagaggcct aaagattcga acaatgagtt taccagctct gagaaaaatg 60
 aactgtcca gaaccttcaa gaatgtttct ctgtatcacg cccacatcac accgaatcca 120
 tttgtcgta ttgcagagtt catcttcttg gttttgagca ccatctcaca cagttctttg 180
 tctttttcca gtctgtgtgt gactgggtta gctcagcccc aaaggtgccc ccactccctc 240
 gag 243

<210> 777
 <211> 249
 <212> DNA
 <213> Homo sapiens

<400> 777
 gaattcggcc aaagaggcct agagcaagga ggtactctga gagctctggt ttgcagaaag 60
 agagaaaaga caggatagat gaagagtagc caaaactccg tagaactggg gggagttact 120
 gagcagacag gatggcatca cagagtgtgc catggtgggg taggagggcg gccaacaggg 180
 acagaggagg gtcctctgcc agggagagaa acagagggaa tttgggggaa accagttgca 240
 gatctcgag 249

<210> 778
 <211> 287
 <212> DNA
 <213> Homo sapiens

<400> 778
 gaattcggcc aaagaggcct acaaaaacca caaaagtgtc tacaagtctc ctggcatatc 60
 tctattttca gacactgaat ctgcagtagc aacctgtttt ctccaccagc ctagggttca 120
 taatcttate tgcctgcatg gaccagaaa taaatcagag tacagcccca cctggggccac 180
 tatctatagg acaaaccagt cctccacct gcatttcaact ctctccaacc cagggaacttt 240
 gttttctttt aacttttatt tttggttggt tcaggggtat actcgag 287

<210> 779
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 779
 gaattcggcc aaagaggcct actttcataa atagaatttt catttttata aaattcaatt 60
 tataattttt tatggtttct ctttattaat cccatttaag aaatctttgt gccatgatta 120
 tgaagatgca ctctaattgt tttttccaga agctctgtag gtttagcttt tacctttctg 180
 ggtttgtttt gttttgtttt tttgagatgg agtccactc gtgtcaccga ggctggagta 240
 caatggtgca atctcggttc actgcaacct ccacctcccg ggttcaagca attcccctgt 300
 ctccacctct cgag 314

<210> 780
 <211> 502
 <212> DNA
 <213> Homo sapiens

<400> 780
 gaattcggcg ccgcgtcgac cggagcagcg cctattagtg tcacctcac cgtcacggcc 60
 ggcgcctcct cctggattca ttcactcgct cttttcattc acgaaggtag tgaggcctag 120
 tggaaagcca tggagagcgc tctccccgcc gccggcttcc tgtactgggt cggcgcgggc 180
 accgtggcct acctagccct gcgtatttcg tactcgctct tcacggccct ccgggtcttg 240
 ggagtgggga atgaggcggg ggtcggcccg gggctcggag agtgggcagt tgtcacaggt 300
 agtactgatg gaattggaat atcatatgca gaagagttag caaagcatgg aatgaagggt 360
 gtccattatca gcagatcaaa ggataaactt gaccaggttt ccagtgaat aaaagaaaaa 420
 ttcaaagtgg agacaagaac cattgctggt gactttgcat cagaagatat ttatgataaa 480
 attaaaacag gcactactcg ag 502

<210> 781
 <211> 217
 <212> DNA
 <213> Homo sapiens

<400> 781
 gaattcggcc aaagaggcct agagagagag agagagctat taataaaaca gaggagtaca 60

ttttaccctt gcaattccag tcaatactgt ggtgtcattt cagccaacat accaacattc 120
 agtcaaattcc caaagccaaa tggataattt cagatggaat ggagtttagac aggaactggc 180
 ttccttttct cctgttacta tgaggacaac cctcgag 217

<210> 782

<211> 219

<212> DNA

<213> Homo sapiens

<400> 782

gaattcggcc aaagaggcct aggaatcatt gcttactggg tagagaattt ctgttcggga 60
 tgaaaatttt tagaaacaga tagtggcaat agttatataa cagtgtgaat gtaattaatg 120
 ccactgaact gtacagttaa aaatgggttaa catggcaaac ttatatctat ttgccacaa 180
 ttaacaacaa caaaaaaagc atgggctatt agactcgag 219

<210> 783

<211> 257

<212> DNA

<213> Homo sapiens

<400> 783

gaattcggcc aaagaggcct aggggagcgt tgtgttccat gctgctgtcc aggcacccag 60
 cggcatgagt agcctatgca accttttagag caaggcggtc gcggcttcgc atcccaacat 120
 gggcactgta tgatgtcccc catcaggcct tcttatgtct gcctggagac cctaattatg 180
 ggcggcataa tttgtccttg acgggtctcat gcattttctg ggctgaatat ccggcaagca 240
 ccagggttta gctcgag 257

<210> 784

<211> 218

<212> DNA

<213> Homo sapiens

<400> 784

gaattcggcc aaagaggcct attggaaaat agctgtgctg tcagcttttt gaggggggga 60
 tttgttttgg tcagtcagtt ttatcataaa tttggcattt gggttaaaac agcaacatgg 120
 aacaaataat ttttagatgt tggaaattcc tggttttttt tgttttgttt tgttttgttt 180
 ttttgagaca gcgtctttgt cacctgggag ttctcgag 218

<210> 785

<211> 197

<212> DNA

<213> Homo sapiens

<400> 785

gaattcggcc aaagaggcct acttgttcca gcgagttgac tataattttt tctacctgt 60
 tatctacctc tagctccatt gaacatcttc cttctgttaa gtgatagcca taagttctta 120
 gtagcgaaat tattggatca aagagtagga caatttttat ggcactttta atgtgtgttt 180
 tcaggcattg cctcgag 197

<210> 786

<211> 125

<212> DNA

<213> Homo sapiens

<400> 786

gaattcggcc aaagaggcct agtgccaaca aaatttaaat ttttctcatt aggattcaga 60
 tttcagatta ggcaaacagt ttggttgatt ctgtgatgta tgtaaagggtt ggaagggttc 120
 tcgag 125

<210> 787

<211> 204

<212> DNA

<213> Homo sapiens

<400> 787

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gaattcggcc aaagaggcct agtgattata aaattccatt tgattctttg tttttctcaa 60
attgcataag cagtgaagtag gaagaagatg atgaaccaca ggaggagtag tcagaagggg 120
agaagaacga gaaaagtaat gtcacagact gtgagggaaa attatocaca aagatgggat 180
gttacagtgc cagatgagct cgag                                     204

```

<210> 788

<211> 493

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (18)

<220>

<221> unsure

<222> (181)

<400> 788

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gaattcgggc aaagaggcct accccagctg atcttgaact ccagagctca agtgatcttc 60
ctgtcttgcc ctcccaagt gcttgaatca caggcatggg ccacagtgcc cagctgggaa 120
tgatttttag acagcaatct tagtgcttgg ttaatttttg ctttgcatct taaacatgtc 180
ntctctgttt ttttcattcc ctttaccatt tataattttc ttcattattt cactatgaac 240
taatgtaaac acaaaacatg ttcattccct gaatgtaagc tacacactta aacctttttt 300
gatacacttc ccagtttctc tgatgccata tgaaaaaact tggattttat tccagatttc 360
tccatatctt gtctttctgt ggatgggcca taaagtgtgc gtgtatgtgt gttgtgtttg 420
ctagatacat tataattatt gttattttatt tatttaaaga aaggatcttg ttctgttgca 480
gtggcatctc gag                                     493

```

<210> 789

<211> 151

<212> DNA

<213> Homo sapiens

<400> 789

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gaattcggcc aaagaggcct acgattgaat tctagacctg cctcagacta tgcgtttgta 60
tttcttgctc cagcctctga atgttatctc caagttgctt gactctgaac tcattcctct 120
cagactgccg cctcctgact tccccctcga g                                     151

```

<210> 790

<211> 360

<212> DNA

<213> Homo sapiens

<400> 790

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gattggctgt tagctttgag ctccagagaga aaaatacatt tagaagtttt tattgtgttt 60
tcttttagtta cggtagcgta gaataagggg acttaaaatt ggatcccttg aaattatatg 120
ttaattttta aaataagttt attaggtgga aggttctgtg tcttttatca aaattgcaaa 180
ggagtctgtg aaataaaaag tactcagctt agattctaca gtatttcaaa ctgtcttttt 240
ggattttttt tttagacag tcttgctctg ttgcccaggc tagaggacaa gtagtgcggt 300
cttgactcac tgcaacctcc gcctcccatg ctcaagctat tattctcatg cctactcgag 360

```

<210> 791

<211> 281

<212> DNA

<213> Homo sapiens

<400> 791

gaattcggcc aaagaggcct agagggatgg agagagagat gaaggaaactg cagacccagt 60
 acgatgcact gaagaagcag atggagggtta tggaaatgga ggtgatggag gcccgctctca 120
 tccgggcagc ggagatcaac ggggaagtgg atgatgatga tgcagggtggc gagtggcggc 180
 tgaagtatga gcgggctgtg cgggaggtgg acttcaccaa gaaacggctc cagcaggagt 240
 ttgaggacaa gctggagggtg gagcagcatg agcaactcga g 281

<210> 792

<211> 279

<212> DNA

<213> Homo sapiens

<400> 792

gaattcggcc aaagaggcct acagggtgact cgaatgaact ctgcattttc aacgtgcctt 60
 ctactgcttc aggacctggg ggtccccctg accctcactg gcttgcccc agccctgggc 120
 ctggcccccac ctgtcctgga gccacagagcc cctggcctgg agctgcctct ctgggggtggg 180
 tctcaggccc caccctccc tcttttgagt tcagtgcctt gctcagcccc tcccctgtat 240
 ctcagcgtct tgagacctct gacagagcga caactcgag 279

<210> 793

<211> 326

<212> DNA

<213> Homo sapiens

<400> 793

gaattcggcg ccgcgtcgac ctaaaccgtc gattgaattc aaggcctacc tgggaagaag 60
 taaaagagca actagaaaag gaaaagaaag gctccaaggc tttggctgaa tttgaagaaa 120
 aaatgaatga gaactgggaag aaagaactgg aaaaacacag agagaaattg ttaagtggaa 180
 gtgagagctc atccaaaaaa agacagagaa agaaaaaaga aaagaagaaa tctggtaggt 240
 attcatcttc ttcttcatca agctctgatt cttccagcag ttcttctgat tctgaagatg 300
 aggataagaa acaaggaaaa ctcgag 326

<210> 794

<211> 239

<212> DNA

<213> Homo sapiens

<400> 794

gaattcggcg ccgcgtcgac gacaccatgg ccaagctcat tcttgtcaca ggtctggcaa 60
 ttcttctgaa cgtacagctg ggtatttctt accagctgat gtgctactat accagtggg 120
 ctaaggacag gccaatagaa gggagtttca aacctggtaa tattgacccc tgcctgtgta 180
 ctcacctgat ctatgccttt gctggaatgc agaataatga gatcacttac acactcgag 239

<210> 795

<211> 100

<212> DNA

<213> Homo sapiens

<400> 795

gaattcggcg ccgcgtcgac attgaattct agacctgcct cgagtgaagt acccaatgag 60
 gaacctaaag ttgcaacagc ttatagaccc caagctcgag 100

<210> 796

<211> 714

<212> DNA

<213> Homo sapiens

<400> 796

gaattcggcg ccgcgtcgac ctactagct aaaaaaattc cttgggggtct ggagtcacat 60
 aaattcattt caatgcctgt tatttcactc ttgattttcc acaagatgac aagcctcttg 120

```

gagatacctc cttgtatcta cttccaggt tattagatac attattttcc caggtaacatt 180
atagtttccc agatacatgt atagctttcc cagatacgtt atttttccat tatatagcaa 240
aattttacat ctgtggatta gaaattaaat ttcacaaagc acctaagaaa gtcttaactg 300
ttctaaatct taagtgaata aagacctggc atgtgtttgt gttgtgtatg tctctctgtc 360
tctctgtgtg cgtgtgtgtg cgcgcgtgcg tgcgtgcgca ctggtatcag ttctgaaagt 420
gtatattggg gtctaagtta ggctcatgct ctcagaaatt cgatgcaaca tgcttgatt 480
attttgttca atatgagagt taaaaagtac attatagtgc tattttggaa aagaaagaaa 540
agcttttcag tagtaacctc acattttgca ttgtatatgt taccttttgc ttctttttct 600
tacacacgta tacaaaagta cataatgata atggtatcat tattgttgtt ttgttaacc 660
ctcatgatac actgtttccc aggttctctg ctaagtacca tacatgctct cgag 714

```

<210> 797

<211> 180

<212> DNA

<213> Homo sapiens

<400> 797

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gaattcgcgg ccgcgtcgac gagggaggtg gtggtagttt gtgtttaata ttcttagtta 60
agctggtgag agaagagagg aggaaaggtt tcctaaggaa gtagatagct gagttgagtc 120
attagagata aataagagct aatgagaaaa tatgtgggca gtatagtgtt gggactcgag 180

```

<210> 798

<211> 165

<212> DNA

<213> Homo sapiens

<400> 798

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gaattcgcgg ccgcgtcgac agggcatctt gatatgctgc tcagtctctg ccttctcttc 60
ttccagatac actgtgcaga tgaagtcacc ggcattgctg gtccactggc cagtgcaccg 120
cacgcgcata ttcacaatgg cagtgatctc ccccgctgc tcgag 165

```

<210> 799

<211> 422

<212> DNA

<213> Homo sapiens

<400> 799

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gaattcgcgg ccgcgtcgac gaattctttt taaattttat tctggttggg attggtctgg 60
cttctgaaat cttgttgatt tttatctttc taagtttggg aaaatttttt cagccatttt 120
cttaaaatac agctttttcc cattttctct tcttccctga gactacattt aaatatatgt 180
tagactttct cactatattt acttctggtt cttttttgta tttaccâacc ttttttcttt 240
gtttgttgaa acaaggcttg gctctgttgc ccaggctgga atgtagcggg atgactcgtg 300
ttcactgcaa cctctgcctc ctgggctcaa tcgatcctcc cacctcagcc tcccaagtta 360
gctcgcata catgccacca ttcttggtta gtttttgtat cttttctaga gacagactcg 420
ag 422

```

<210> 800

<211> 329

<212> DNA

<213> Homo sapiens

<400> 800

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gaattcgcgg ccgcgtcgac ccccagggt caagcaatcc tcccatttca gcctcccgtg 60
tagctgggac cacaggcatg tgccaccaca ccttgctaag ttttgtttt tgtttgtttg 120
tttgttttgc agagaaaggt ttttgccatg ttgtccagat tggctcâaa ttcttgact 180
caagcaattt gccaccttg gcctctcaa cgcgtgggat tgcaagcatg aaccacctca 240
accagccata ttctgtttct attataaatg atgagattaa gcgttcagac tgctgtttgc 300
aaacagtttt cacaatgtt acactcgag 329

```

<210> 801

<211> 436

<212> DNA

<213> Homo sapiens

<400> 801

```

gaattcgcgg ccgcgtcgac gtagaacagt gattactgga ggctgggagg aaagggaggt 60
ggatatggag aggttgggta acagatacaa aattacggct agataaaagg aataagttct 120
agtgtctgtg gcactgtagg gcgactagag ggtgtagtta acaatttact gtatatttct 180
aaatagctag aagacaggat ttctaacttc cccaacacaa agaaatgata aatgtttgag 240
gtgattaccc tgatttgatc attacacact gtatacctat atcagaatat cacactgtac 300
ccataaata tatacaatta cctatcagtt ttaataaat aaattttcaa aaaccacaat 360
atTTTTTTga atgagactct acctaaaatt ttattatgtt ctctctttat ggccttcttt 420
tgggaaaaca ctcgag                                     436

```

<210> 802

<211> 725

<212> DNA

<213> Homo sapiens

<400> 802

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gaattcgcgg ccgcgtcgac atgcacttta ggtttgtttt tgcacttctg atagtatctt 60
tcaaccacga tgttctgggc aagaatttga aatacaggat ttatgaggaa cagaggggtt 120
gatcagtaat tgcaagacta tcagaggatg tggctgatgt tttattgaag ctctctaact 180
cttctactgt tcgatttcga gccatgcaga ggggaaattc tctctactt gtatgaaacg 240
aggataaatgg ggaatcagc ataggggcta caattgaccg tgaagaaactg tgccagaaaa 300
acttgaactg ttccatagag tttgatgtga tcaactctacc cacagagcat ctgcagcttt 360
tccatattga agttgaagtg ctggatatta atgacaattc tccccagttt tcaagatctc 420
tcatacctat tgagatatct gagagtgcag cagttgggac tcgcattccc ctggacagt 480
catttgatcc agatgttggg gaaaattccc tccacacata ctgcctctct gccaatgatt 540
tttttaatat cyaggttcgg accaggactg atggagccaa gtatgcagaa ctcatagtgg 600
tcagagagtt agatcgggag ctgaagtcaa ggtacgagct tcagctcact gectcagaca 660
tgggagtacc tcagaggtct ggctcatcca tactaaaaat aagcatttca gactccaacc 720
tcgag                                     725

```

<210> 803

<211> 297

<212> DNA

<213> Homo sapiens

<400> 803

```

gaattcgcgg ccgcgtcgac ttctaaaatt ttatataaat agaatcatat agtaagtact 60
tctgttgcct ggctcctatt actcagagta attgttgata ttatccatg gtgaagcatg 120
tgtcagagtt tattcctttt tattgctaag cagtgttcca ttgtgtatct gttttactac 180
agttttgtcca ttcacctgtt ggtggacctt gggttgttct tggttttggg ctctacacct 240
agaagctcct atgaacattt gtgtacaagt tttggtattg ttaaagttaa actcgag 297

```

<210> 804

<211> 701

<212> DNA

<213> Homo sapiens

<400> 804

```

gaattcgcgg ccgcgtcgac aaaagggtaa gtataagaaa atattgcaaa cacattaaaa 60
cagttgtatg gtgcaggaaa agaagattgg aaaaagacca aaacacactt ctccagcaac 120
actccatcag ctttttataaa tttagagcta tctgctaatt ttttccctct tcttctcaa 180
taaatgaaac aaacactggg cagctgcagg tttctcccaa tcatgtctct ttatgtaaag 240
acagtaacat gcaaacactt ttagtttaca tccctcatte acagtgtaaa gcaggaaatg 300
gtgtgggaga tgtgagacca ttctgaggtc agcgatagcc caaaggctct gcagtattcc 360
ctccaatggc caaggattcc gtgtgtcatc tgcaggagtg agtaggctct ctgtatttct 420
tgttaactgct ggggtgttaca aaataagtta caatgtttta cactttaaaa aaaaaacaga 480
aggaacattt gctttatttg ttacttacta gtttagcttc taggttatgg cacagcatgc 540

```

taaaaaatca tgtgttttaa agtaaatgtt ggtaaaatgc tggcatctgg tcctattgtg 600
 ttgatgcatt ttcactctctg tggcatagg aaatggactg gtctaaagag agtgaggcac 660
 aacacaagca gggcattagt ttgaatagga agtctctcga g 701

<210> 805
 <211> 269
 <212> DNA
 <213> Homo sapiens

<400> 805
 gaattcgcgg ccgcgtcgac ccaaccgtcg attgaattct agacctgcac tccagcctgg 60
 gcgacagaac aagactccgt ctcgaaaaaa ataaaaataa ataatatag 120
 tgtagtatca aaggaaaaa gcaaaacttt aaatatctgc tttgaaaatt aactgttttg 180
 taggttaaga gcacagtgtc gcagctttgg acttaacata attaatcag atgttagcca 240
 tacatacett ttccatctgc cttctcgag 269

<210> 806
 <211> 259
 <212> DNA
 <213> Homo sapiens

<400> 806
 gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcctcgagt gttgtgtggc 60
 catgggggtat aggaggttgg ctgttatcgg cctctgctcc tgtgggtttt actccttctt 120
 ggcctacctg ctgctctttc agtctccatt cccaccttt tctctctc gcagccactg 180
 tttgatgctg gactgcagga aaatagtcag cgatgcagga gtgtccagge agtgttccca 240
 ccaacagtac actctcgag 259

<210> 807
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 807
 gaattcgcgg ccgcgtcgac ggacagggga ctgggcagaa aataatattg tagaaggtag 60
 aacagcattt ctttgggagg atttatcttt ttaagtatat agtggcttc taccactatc 120
 ctacaacagg ttgcaggaca aataatgtat ttaattcttt gggggagtct ttgtgtaagt 180
 cagaccttat tcattttcat tccaacaacc ctcgag 216

<210> 808
 <211> 705
 <212> DNA
 <213> Homo sapiens

<400> 808
 gaattcgcgg ccgcgtcgac acctgcctct aaataaataa ataaataaat aaataaaaaat 60
 aaaggcaaat ctgatcaagt catgctctgg gataaaagct ctaaaggctt caccctttgc 120
 tttaggagaa tgcttgcgcc agcctggaag atccgggctt tccccctccc ccaagccctt 180
 ctctcccagt ccacccttcc cactgattc ctcccacaga tcaactgaga tataaatata 240
 actctccacc taaaaatatt acgggtagaa gtaacactga ggatggctag aaatggatat 300
 aagaaaaatc attattgact aaaatgcaca aaagaatcaa atcttgacca cgaatctttt 360
 tttttgggtt taatttaaat ctcccaaat ggaatggggt taccagtc aacacacaat 420
 ggcagaaact cgtgtcaaga gctgcagtc cccacactga tggatgcctc caatctcagc 480
 agcagaatgt gtagggaatc gatgccgatg aaaacagttt cagtaaaatt acaaaagaat 540
 gaaaaacatg gacatttgtt taactgtact acaggggaaa aacaaaaatc tgatcaaaaga 600
 attaatgttg atgaatagag ttcaagctgg agaacacctt cttaaaacat tttcaggggt 660
 agtatgtttt ggtttaaaat gtttgcattc aaggttctcc ctata 705

<210> 809
 <211> 230

<212> DNA

<213> Homo sapiens

<400> 809

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gaattcgcgg ccgcgtcgac gtgagctaaa gcagtcaatt ttttcattgga gcaccacgaa 60
agaacaaaag acatataaat tatggttatg caaagtaaaa tataacaacat tttcttttct 120
ctcctttttt tttttttttt tttgagacag gtcttgctct gtcacccagg ctgcagtgc 180
gtggtggtgc catcactgct caacacagct tctatctccc aggactcgag 230

```

<210> 810

<211> 544

<212> DNA

<213> Homo sapiens

<400> 810

```

gaattcgcgg ccgcgtcgac cgctcgattga attctagacc agccccggcca acacacgcgaa 60
accccgctct caccacaaaa atacacaaaac cagtcaggcg tggcggcgcg cgcctgcaat 120
tgcaggcact ccgcaggctg aggcgggaga atcaggcagg gaggttgag tgagccgaga 180
tggcagcagt atagtccagc ttcggctcgg catgagagg agactgtgga aagagaggga 240
gagggagacc atggggagag ggagagggag agggagagg agaggaccgt ctgctttaaa 300
aatgggaaat atcagtattt gaggcaatga agtcaaaatt gacctaatga gatgttgata 360
cgattctttt cctgaagctt taatacattt acatttttat ttttggaaac tcactttcat 420
tctgtacatt tatactgtac ctattttgtg ttgtcagatg tacgtgtgtg agttactgat 480
tttcttctc acacatggag acacttggca gccaatcagc ccaccaggaa ataggtecc 540
cgag 544

```

<210> 811

<211> 714

<212> DNA

<213> Homo sapiens

<400> 811

```

gaattcgcgg ccgcgtcgac ccccaacctg ccgcgatgcc ctatatctca gacaagcacc 60
ctcgacaaac cttggaagtg attaaccttc tgagaaaagca ccgggagcta tgtgatgtg 120
tgctagtgtt gggcgccaag aagatatatg cccatcgagt cattttgtca gcctgtagtc 180
ctactttccg agctatgttt acaggagaat tggcagagag ccgtcagaca gaagtagtga 240
tccgagacat tgacgagagg gctatggaat tactgattga ctttgcgtat acctccaga 300
taacagtaga agagggcaat gttcagaact cttctgccag ctgcttgctt cctccagctg 360
gcagaaatag aggaagcctg ctgtgaattc ttaaagagac aattagatcc ttctaactgc 420
ctgggcattc gggctttttg tgacacacat tcatgtcgtg agttgctaag gatagcagac 480
aagttcaccc aacataactt tcaagaggtg atggagagtg aagagttcat gttgcttcca 540
gccaatcaac tcattgatat aatatccagt gatgagctaa acgttcgcag tgaagaacaa 600
gtgttcaatg cagtgtatggc ctgggtcaaa tacagtattc aggaaagacg tcctcaatta 660
ccccaggtgc tgcagcatgt tcgtttgcct ttgcttagtc ccaagccct cgag 714

```

<210> 812

<211> 309

<212> DNA

<213> Homo sapiens

<400> 812

```

gaattcgcgg ccgcgtcgac acagaaaagg gcttggttgg acaaatctac aagggttgtt 60
aaacatacaa agtgccaaa gcctatagtt attcattcta ttacttgttg gcaggtaaat 120
atcttgttga aagtatttgt ttatttttat ttttactttt tgaggtggag tctgcacctg 180
ttgcccaggc agcagtgcag tggcgcagtc tgggtcact acaacctctg cctcccgggc 240
ccgagtgtt ctcctgcttc agcctcccaa gtagctggga ctaaaggcat gcaccaccat 300
cacctcgag 309

```

<210> 813

<211> 178

<212> DNA

<213> Homo sapiens

<400> 813

gaattcgcgg ccgcgtcgac gtcgattgaa ttctagacct gcctcgatga atcccgcaac 60
ctttccaaac acgtctcatt tattagttct aatatctttt agtagattcc ttagtggttt 120
tttttggttt ttgttttttt ttaataatat aaaggatcat gtcattctgca aactcgag 178

<210> 814

<211> 342

<212> DNA

<213> Homo sapiens

<400> 814

gaattcgcgg ccgcgtcgac aaccttcttt tgtttgtcag cagccaaggt gtttccagga 60
agttcagaga gaacagaatt taagaagtgc aacatggcca ggggctgcct ctgctgcttg 120
aagtacatga tgttctctct caatttgata ttctggctct gtggctgtgg gctgctggga 180
gtgggcatct ggctctccgt gtcccaaggc aactttgcca ccttctcccc cagcttccct 240
tcgttgctct cagccaacct ggtcatcgcc ataggcacca ttgtcatggt gacgggcttc 300
ctcggctgcc tggggggccat caaggaaaac aagttcctcg ag 342

<210> 815

<211> 668

<212> DNA

<213> Homo sapiens

<400> 815

gaattcgcgg ccgcgtcgac gtgtgccttt gctggtgaag agtcggaaa cttaatcaaa 60
aatagatgtg agggttctgc tgcactgtac tgggtgtcta aactatacta gacgtggggc 120
ttagaagagc tcccttttcc acatagaaaa gctctatggg gttggatcac tctctacaga 180
ttcttctttt gaatccatt ggctctccca gttgttctg acaccatag ccacagagaa 240
ggagtcacaa agtgaagccc tcagcttgct cttctctaag ctctctgcag cctcagtggc 300
ctoatctgaa cagtgcagat gatagttacc acttcatagg gctgcctaga aaacaaaatc 360
cagtagtggt caaatcacct catagcacat cgtagatgct caagaaagtt ggctgggtgt 420
actcacatc tgctgcagcc cctaggctga ccccatctct gacagtctc caacttgctc 480
tctccctgct ccttgcctcc ttctctctag ggtttgtgag gagcagaggg agagaaaggg 540
tgggtggtca gtcacccctg ctggctatga caggttgca gtcattgggg aaaggagaca 600
gcatcactct taagcactct cctgagattc atgatggaca ctctccagc aacgcagggg 660
ccctcgag 668

<210> 816

<211> 344

<212> DNA

<213> Homo sapiens

<400> 816

gaattcgcgg ccgcgtcgac ggcagatggt gtgaagaggc attgtgagct aagtgtatag 60
gtgagggtgag ttaataaaaag atgtaaattc tggcctaaaa tggtagggcc tcatgggtatg 120
caggaaaatt taattaagtg gccaccactc ttcccccatt caattggatt ttcttctgcc 180
acagtaagaa gtcattccagg atatgctggg ggggcactta gatgagtctt ggtccgttga 240
gtgttttcat ttcttgatat tctaattgcc agcaggaac cttgaacgta agaaaatcat 300
gtgaaacttc atcaaaaatt aataatcacc aagcaggact cgag 344

<210> 817

<211> 163

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (135)

<400> 817

gaattcgcgg ccgcgtcgac gggggggcct ttattaatat tgtcacacca caccacacca 60
 cacacacaca ccacaccaca ccacaccgtt tgaaagctgc atcaagctgt gcacaaacat 120
 gatcgagctg ctgtntttgt taagcctccg ccttcocctc gag 163

<210> 818

<211> 319

<212> DNA

<213> Homo sapiens

<400> 818

gaattcggcc aaagaggcct aaacaaagga tttgaacgtt tttcagcaca aaaggataac 60
 ttccgagctg tggctctgtac gcatactagc aaaggtaatg gtgatctagc aaacaaaatt 120
 ggtttctgca gttagaagtg agcaggagca cttgtattat agtattttaa taatcctggg 180
 taatctcttt ttaagccgag taacccctcc agattttgcc tttttattat tgaggctggc 240
 tttattttct tctacttttt ttcccgtttt atagcagtta attatttttg tgattattat 300
 gcaagaagca ttactcgag 319

<210> 819

<211> 393

<212> DNA

<213> Homo sapiens

<400> 819

gaattcggcc aaagaggcct acagagaact gaatagatga ggggtgttga aagaaacgtt 60
 tttgggcatg gtgtaaaggc atgcttgagg gattctaagg aggctggtgt gtggctggaa 120
 ctaagtgtgg ggatgagagg tactaggaga tcacatgaga ccatgtaggc cactgttagc 180
 agtgagtaca atggtaaatg agtagaagga ttttgaacag caagattgct atgatcttac 240
 ttaacactta taaaagagtc actcctatga cttttgtagg gtgagtaagc tatagtaata 300
 tcaatagaaa tgaacatgct ttgcatttgc catgtgtcag gtattattat tattatttat 360
 tttacttttt tttgagatag ggtccactc gag 393

<210> 820

<211> 270

<212> DNA

<213> Homo sapiens

<400> 820

gaattcgcgg ccgcgtcgac gaaggataag aacaggctcg agatgtccgc ccagaggtta 60
 atttctaaca gaacctccca gcaatcggca tctaattctg attacacctg ggaatatgaa 120
 tattatgaga ttggaccagt ttcccttgaa ggactgaagg ctcatataata ttccattgtg 180
 attggatttt ggggttggct tgcagttctc gtgattttta tgttttttgt gctgaccttg 240
 ctgaccaaga caggaacccc acacctcgag 270

<210> 821

<211> 163

<212> DNA

<213> Homo sapiens

<400> 821

gaattcgcgg ccgcgtcgac ctacatagtt ctttctgaat acaaattctca gataaaacac 60
 tatctcagtg atcaaccagg ttaagcaacc ttttttagtgc ctcaattatt ccatttgtaa 120
 aattgtaata atgatagtag taacctataa gattattctc gag 163

<210> 822

<211> 200

<212> DNA

<213> Homo sapiens

<400> 822

```

gaattcgcg cgcgctcgac attagaagct ctagttagtg aagtttggtt atactttgaa 60
aatatactaa gatggaacca ttaaaaacag taataatttt tattatcttt catttggtca 120
agaatgataa aaagcatcaa ctagaaggga aacttcaaga tatcagatgt cgattgacca 180
cccaaaggca agatctcgag                                200

```

<210> 823

<211> 284

<212> DNA

<213> Homo sapiens

<400> 823

```

gaattcgcg cgcgctcgac ccaatacaca ccacactgtc tacttcagtg gggaaatacc 60
aaccctcctt caccaatcca gaaagaaatc tgtaatatga gattcctcga cagtgtagaa 120
acctagtctt gtctagtatg gttgttttgg acatttgtaa atttattttt aaagttttat 180
ttgtatatat ctttttgaga caggattttg ccctgtcagc cagggttgag tgcagtgggc 240
tgatcatggc ccaactgcagc ctcaatcccc caggctatct cgag                                284

```

<210> 824

<211> 275

<212> DNA

<213> Homo sapiens

<400> 824

```

gaattcgcg cgcgctcgac tattgtggta ctgtttataa tttattgggt ctcttaggac 60
cttagtggga gttggctact ttttgggtta acactaagta gctccagact gttttaaaaa 120
tgcttgtttt tgctgtatat aggtttttat ttatttgttt gtttttgttg ctgcttttgt 180
ttcttccctt ggtgttgggt gacattttta actatcatag ataccctttt ctaaagcagt 240
ttctatctcc tgggtccacc cccctccacc tcgag                                + 275

```

<210> 825

<211> 256

<212> DNA

<213> Homo sapiens

<400> 825

```

gaattcgcg cgcgctcgac catctgggta tttggaaaca agtggtcatt gttacattca 60
tctgtgaac ttaacaaaac tgttcaccc taaacaggca cagggtgatgc attctcctgc 120
tggtgtttct cagtgtcttc tttccaatat agatgtgggc atgtttgact tgtacagaat 180
gttaatcata cagagaatcc ttgatggaat tatatatgtg tgttttactt ttgaatgtta 240
caaaaggaat ctcgag                                256

```

<210> 826

<211> 276

<212> DNA

<213> Homo sapiens

<400> 826

```

gaattcgcg cgcgctcgac agagctttaa ggctggatta tgcaataact aacttttttt 60
attttagtga aaacgattca aatttcaaca catttaataa taaatgagaa aatttcagta 120
gataagcata gaacaaatgt aaaagaaact ctcttcaacc aagattgtac tattgtatgt 180
ggtctaaagt atagtaatat ttttactcag aatgggtgaat taaagatact gggagcttct 240
gaaatgcac ctattccaaa aatgggggta ctcgag                                276

```

<210> 827

<211> 169

<212> DNA

<213> Homo sapiens

<400> 827

gtccttgtgc tgaggagaag gatgtttatt ctgatatcca ttagatgaaa tgttctgtaa 60
 atatctatta ggtccatttg ttgtacagta cagattaagt ttgatgtttc tttttgattt 120
 tctgttattg gaagatctat ccaatgctga aagtggggcg agtctcgag 169

<210> 828
 <211> 172
 <212> DNA
 <213> Homo sapiens

<400> 828
 gaattcgcgg ccgcgtcgac catcaagtct acaagaaaat taaaggagtc tttgattaac 60
 agtgggtttt caaacaaacc tgtgtacaa cttagtaagg aaaaagttca gaaaaaaagc 120
 tacagaaaac tgaagactac ctttgttaat gttacttctg aatgcgctcg ag 172

<210> 829
 <211> 385
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (251)

<220>
 <221> unsure
 <222> (264)

<220>
 <221> unsure
 <222> (274)

<400> 829
 gaattcgcgg ccgcgtcgac gctgctctga tgacttttaa aaactgattt gtagggattc 60
 tttgtgtaaa cactaatgct tgatctgata tatcaaattg tgtgaatgct taacagacca 120
 agcattagta ttcacacatt catgtgcatg tgtacatgtg tgtgtgtgtg tagtatctta 180
 tgcactctac cctagaggat gccactcaag taactttatt tttattatgt atataataat 240
 caggggtacac natactgtt tttntgaaaa gctnactaat acagcagaat ctactactt 300
 tcatttcctt agtttgaagg tgagtataca aaattcacas tctctacttt gaataatctt 360
 gaaataaaac atgagattac tcgag 385

<210> 830
 <211> 246
 <212> DNA
 <213> Homo sapiens

<400> 830
 gaattcgcgg ccgcgtcgac tatcttaaac tcctgaaata gatattctaa acaattttaa 60
 attaaccttg ataacaaaca gttccccaat cagcactggt cattggacca tacttgaggt 120
 tacattgctg tagtgtgaga ctttcatact ttttttaaaa ttgtcacctg tattaagaaa 180
 tacattttac attttcatcc agtgttatat catatacaca tgtacataac tgaacaata 240
 ctcgag 246

<210> 831
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 831
 gaattcgcgg ccgcgtcgac ctctttgct cattttttaa ttggattatt tgtctttaa 60
 ttttagatac taatccctta tcagatattt gatttgcaaa catttttctt tctttgtagg 120

ttgccttttt attttgttgt ttgtttcctt tgcacgctg aagcttttta gtttgagcta 180
 gtctcattta tttttacctt tgtagetaag ctttttgtgt attacccaaa aaatcattgc 240
 caacaccaat gttgaggaac tttcctcta tgttctcttc tagtttatgg ttttgggtct 300
 tatatttagg tcattcactc gag 323

<210> 832
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 832
 gaattcgagg ccgcgtcgac gggagtcata tacagacttt tgtggatttc atgttaaaaa 60
 aaaaaaatca attgttataa gagaacacac tgttttgtta aaaaaaaaaa tcttttttgt 120
 tgtgcataatg tatttacaca catatatoca tgtgtactcg gtctcaatat caaaatatat 180
 cttacagtta cttatgggtca aactgtttga aatacttgta ttttaatttt ctggtgtggc 240
 ttttcagaca ctctggaaag cagaactaag aaatgatttc tggggatat ctaggaaatg 300
 tcacctcagt tatagcccag aaacaactgt ggcccgactc gag 343

<210> 833
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 833
 gaattcgagg ccgcgtcgac ctttttaaac gttgtccgca tttgtactca gtgggacaca 60
 tcttagggcc tigtgtatcc tgcaaagtat agaatactgg aatcagaagg aagctttctt 120
 tttccctac tgtttagtct ttttgggagg aaaaagaccg gaattttgtg gtcatttaga 180
 tgttcattaa cctgggtcgca ttcattcacta gtccatttca gtcaggagga tgtttaattt 240
 cagtcctctt ccagggtttg atgcttcagt cctcttctgg gtttgcattc ttcagagggt 300
 ctgggacac agtctcccta gaactgtctt ctcccaaatc tcccttaact cttcttccgg 360
 gtcattcccc ccttccctc gag 383

<210> 834
 <211> 191
 <212> DNA
 <213> Homo sapiens

<400> 834
 gaattcgagg ccgcgtcgac ctccagaagga gaatgttgtt gcttgagcct cttttgagct 60
 ttaaaaagga caaggaaagg cactgtacgg agtgttttac ttttgacttt tttttcatga 120
 ctacaaaactg ttggatattg aaaaccttgc atttacttgt gaattgccag tctgtgtttg 180
 cgtcactcga g 191

<210> 835
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 835
 gaattcgagg ccgcgtcgac tgtcatttca tttcggtttc ttttctcgcc atgtttttct 60
 gtccgaatta cggttcgttt tggttctatg tactctctaa aatgttatcg ttttcatatt 120
 gtctactaat tttcgtgcat ttgttactac tgagtttctt aatatctgac tggcctccgc 180
 ccacgggtct cgag 194

<210> 836
 <211> 206
 <212> DNA
 <213> Homo sapiens

<400> 836

gaattcgcg cgcgctcgac gtttgagtct tctgatgtaa aacattttaa cagggaaatt 60
 tctgctgtcc tcagaacaag atctgtatct ctgcctcttc cctacccacc cctcttccac 120
 acctcataat gttattttatt tttttctct ttagtgggca gttttatctg gcaatagcaa 180
 ctcaatttta tggcaacgcg ctcgag 206

<210> 837
 <211> 156
 <212> DNA
 <213> Homo sapiens

<400> 837
 gaattcgcg cgcgctcgac tgtgctgtta tgtatgtgtg tgtgtgtaga cgttgctcctg 60
 aggttcatca gctaaaataa tataataagc aatccctaca aaatatttca aaccaggcaa 120
 atgacttctg gaagagagag aaaggaagag ctcgag 156

<210> 838
 <211> 282
 <212> DNA
 <213> Homo sapiens

<400> 838
 gaattcgcg cgcgctcgac gcatttgatt ggtcagagtg gttttagaat gctttttgaa 60
 ggaaaataaa aatggacaag atattgaaga atagggggaa ttggccatg agtagaagac 120
 aggagacttt tactgaaact cactccttca acctgttttt cttttattgt cgtacttggt 180
 accatgtctt tatggcttgc tgtccttatt tcaactgtatg ctcactctaa tcttttagga 240
 aattgcaaaa ttattaaaaa ttgccatagt acaaacctcg ag 282

<210> 839
 <211> 199
 <212> DNA
 <213> Homo sapiens

<400> 839
 gaattcgcg cgcgctcgac gcaaaacatc catcttatcc gagccctct tgcaggcaaa 60
 gggaaacagt tgggaagagaa aatggtacag cagttacaag aggatgtgga catgggaagat 120
 gctccttaaa aatctctgta accatttctt ttatgtacat ttgaaaatgc cctttggata 180
 cttggaactg cgactcgag 199

<210> 840
 <211> 146
 <212> DNA
 <213> Homo sapiens

<400> 840
 gaattcgcg cgcgctcgac ctaaaaccgtc gattgaatcc catgcccctg tctctctgtc 60
 tttatgtgtt gccatttctc tgcccctgcc tttggtcttc tttctcagag tgtctcttga 120
 tctctaactc ttctctttgt ctcgag 146

<210> 841
 <211> 225
 <212> DNA
 <213> Homo sapiens

<400> 841
 gaattcgcg cgcgctcgac caccctaatt atccggctgc ggcacaacgt gattaagaca 60
 ggtgtacgca tgatcagcct ctctattcc cgaatctct tggctgacat cgcccagaag 120
 ctgcagttgg atagccccga agatgcagag ttcattgttg ccaaggccat ccgggatggg 180
 gtcattgagg ccagcatcaa ccacgagaag ggctatgtcc tcgag 225

<210> 842

<211> 280
 <212> DNA
 <213> Homo sapiens

<400> 842
 gaattcgagg ccgctgac cctaaacctc gactacatat tctgaaccag ccaggggaagg 60
 gtgagtttagt tgtttctgtt ggtcaactga atctcaggta tctttggtct tcttttctct 120
 tacaatggaa gtaattgtca ggacctatct gagaccagtc ccttggtctac tgetcttcat 180
 ccttttttct cttgttttct caatggcttt actccttctt ctcttcaaca gcatcagctc 240
 tgcacctctt tactctttgg caaagacacc caatctcgag 280

<210> 843
 <211> 361
 <212> DNA
 <213> Homo sapiens

<400> 843
 gaattcgagg ccgctgac agcttttctt tctacttgca gggcaccac agtgaaaatt 60
 gagggttcat ttttttctta tttgcgatac ctgtagcctg agaatgttac ttctagcagt 120
 tgtcttcatt ttgtttatct ttattaatgt agaaaattat caaacccata gaaaaattga 180
 gaggtagatg aatacccata tgccctgtc cttggtctc cagctattaa cacttctgca 240
 tatttcttat cctccttctt ctctcttact ctttcttctt tctctctctt tcttctctct 300
 tctctctctt tttgtcagac catgtgacac ttcaccaaca tataacactt cactcctcga 360
 g 361

<210> 844
 <211> 121
 <212> DNA
 <213> Homo sapiens

<400> 844
 gaattcgagg ccgctgac gggagacaaa gaaatatcga aagcaagtaa agaaaaaaaa 60
 agacaccagt gatcaacaga ataaagccag aatgagattg aagttagaaa cttgggtcga 120
 g 121

<210> 845
 <211> 366
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (69)

<220>
 <221> unsure
 <222> (75)..(76)

<220>
 <221> unsure
 <222> (97)

<400> 845
 gaattcgagg ccgctgac ctgggaacat ggtcaagggt gaaggggctc ccctagagag 60
 ggtggggng tagtacctc ccagttggcc agaaaaanagg gccttgacga ccccttagc 120
 attttttccc ttttttctt tccctgtctt ctacttcttt ggggagcccc ttgtgttttg 180
 gaggctgact ggagtctcgc atcctggggc ctgctccatc catccctctt gggcgccaga 240
 cctccatcc aagccctgtg tctttccata gtcagggtca ggcctgcat ctattccaag 300
 gggcactcag tacacattcc ataaattagc tgggtgtccc tgcacgcccc ccccatgaaa 360
 ctcgag 366

<210> 846
 <211> 183
 <212> DNA
 <213> Homo sapiens

<400> 846
 gaattcgcgg ccgcgtcgac tggttctttt atagctaata aatatacctt tatctggctt 60
 taagattttt tctaactact ggttttaagc aatttggtta tgagggtctt tgatgtagtt 120
 ttatgtttct ttttattatt attattaaat ggtgtctcac tctgttgccc aggettactc 180
 gag 183

<210> 847
 <211> 191
 <212> DNA
 <213> Homo sapiens

<400> 847
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 ttctcctcaa agtcagcacc attatgggtc gaaatcatct gtgcaagtct aatttgttct 120
 gcagtggcct gtggccgctg cttgtgctgt gtctggtttt ggttttgagg ttgttcccag 180
 tccccctcga g 191

<210> 848
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 848
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 gttatacttt tttagttttc ttaaatgtac gattaaatga ttattgacta tagtaacctt 120
 gttgtgctat caaaaatatt agggcttatt catttattca ttcaattttt ttggtaccca 180
 ttaatcatcc ctacccctc cctcgag 207

<210> 849
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 849
 gaattcgcgg ccgcgtcgac ggaattatct agtccccaga ttgatcatct cccctggcaa 60
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 actaattagg ctataaccag gtctttccctg gctgagaaa tattctctta aaatgacctt 180
 tgttttaate tcattcatga tgttgatttt ttttcaatgt ggtgctgggc tcgag 235

<210> 850
 <211> 205
 <212> DNA
 <213> Homo sapiens

<400> 850
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 gattatgctt ctgtgggttt gtatatgtgt gtgtatctat acatgggtact taggtataag 180
 tgaaatgaat gacagcgatc tcgag 205

<210> 851
 <211> 221
 <212> DNA
 <213> Homo sapiens

<400> 851

gaattcgagg ccgcgctcgac cgcagacccc acactcttct gcaattcatt tcatagttgt 60
 caagactata caaattgtcc tttttaatgt tctctcttct gctatcccta gttggcagtc 120
 ttctcttcta caacctgctg aaagtggag acctccagtt ttctttaat tctcagcaa 180
 accaccaact attatatgtc tttttccag aacaactcga g 221

<210> 852

<211> 254

<212> DNA

<213> Homo sapiens

<400> 852

gaattcgagg ccgcgctcgac ctaacaatga agagtcaaga aaaagctaatt ttaggagaaa 60
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 gtgttgatgt agatccagaa aaactggaaa tggagagtaa acttcataga aatttgcctat 180
 ttcaagattg tgaaaaagag caagacaaca aaacaaaaga tccaacccat gatgttaaaa 240
 cccccacact cgag 254

<210> 853

<211> 247

<212> DNA

<213> Homo sapiens

<400> 853

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 gggtagagac aaatttactt tccatttctg ataacaacgg agtcagtctt cctgctgcc 120
 gaggattttt tgaacacagc tgaatactgc tcttctgcct ttctgagaga gggcagaacc 180
 gggtcacgt gtgtcttgac agagggccat gataactgtc tacagatatt taaaggggtg 240
 actcgag 247

<210> 854

<211> 253

<212> DNA

<213> Homo sapiens

<400> 854

gaattcgagg ccgcgctcgac aattagtggt catcattaaa ttatcaaata agtataaatt 60
 agtactcttc ttttcttga taatagaagg atcttagaac actttaattc catttatctc 120
 cctcacagtt tttatgctat attgccatct acttcatctc ttggtaaatt ttaaacctca 180
 gaagacatta ttattattgt tgtttgaaca gttaatatatt attgagagtt actcatatat 240
 ttgccacctc gag 253

<210> 855

<211> 318

<212> DNA

<213> Homo sapiens

<400> 855

gaattcgagg ccgcgctcgac acctgcctcg agcctaggct gctccttttc acctaatata 60
 ccagttttat aaatgggact cagttataaa gtttaggtcc acctcctcca ggaaattttt 120
 tctgacacc tcttctctcc caatctcgtt tgggtactct agcattgtgc ttccacctt 180
 tgcacagagc aatcatcatg tttaccacat ctactattaa cataattgtt tctgtgttt 240
 tctcctccac aagatttatt ttttttagat gaggtgttgc tgtgttgccc aagctggact 300
 tgaaccctca ggctcgag 318

<210> 856

<211> 249

<212> DNA

<213> Homo sapiens

<400> 856

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gaattcgcgg ccgcgtcgac aggtttcagc ttcttcctga ttcaatcttg ggtggttgta 60
tgtttccagg aattcatcca ttttttaaat ttttttttag ctttttttagt ttgtgtgcat 120
agagggtgtc ataacagtat ctgaaggctt ttttgatta ttgtggagtc agtggtaatg 180
tcttctttgt cttttctgat tggatttatt tggatctact ctcatTTTTT ctttattagt 240
ccgctcgag                                     249

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<210> 857

<211> 212

<212> DNA

<213> Homo sapiens

<400> 857

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gaattcgcgg ccgcgtcgac aggtttccaa tcaatataaa tatatatata tatatacaca 60
cacatatata aaaagtataa tttttctatt tttgtttttg gttttaattt gcagagattt 120
gctgccagga atcaattttg aggggttcaga tttagcttgg aagaaaaaaaa agaacatac 180
atccttcagt ataggagatg agggcactcg ag                                     212

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<210> 858

<211> 426

<212> DNA

<213> Homo sapiens

<400> 858

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gaattcgcgg ccgcgtcgac caaaaaacaa aaaaagaaaa tcttagaaaa agaaaaataaa 60
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aacttaccat tgatgctaga gattgaattt ccccatgtct acatgaaaaa tgaatagaat 180
ataaacattt taaattgagc catgtctatc tgtattatat ttcttttata gaaattcatg 240
gaaatgggtat attttaactg aattattaac actggggaca ataggcttta atcattatgt 300
aatacctgta cgttgttttg aaattcatag cccaccacca ttaatttcaa aattgggttc 360
ttactcaaag agtgatgaaa aggcaccagt accaaatggt ctggccaaaa tgctacatgc 420
ctcgag                                     426

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<210> 859

<211> 215

<212> DNA

<213> Homo sapiens

<400> 859

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gaattcgcgg ccgcgtcgac catttgacct ttttaacaaat ccctaagtaa ataaatagcc 60
cctcaggaaa actaagtgtt tctctgctgt ttttttgctt gagagagcta taactgtaat 120
agacttatat ttctgaacat tttagtgtc gccaatattt ggtaatatat atgttttcta 180
tatttgtaat gaacattctt cttccggtac tcgag                                     215

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<210> 860

<211> 672

<212> DNA

<213> Homo sapiens

<400> 860

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gaattcgcgg ccgcgtcgac cccagcctcc cttccacag aggccaccgt catggccagt 60
tgctgcagtt tctttccaga gaacctgtgt atgtgtaaag ctgtacaggc gtgggtacac 120
cacacagcct gtcttgcaact gtggactgtt gagttactag tacatctaga attctcctgg 180
ctattccagg ctgcatgttt adcttaacct tccctgtgat gtcttcatgc cgttgtcttc 240
ttatgcaaga ataagactca aatgactcca gaaagctaca cttcctgttg tgagtatatg 300
atatccattt cctacatag ccactaacat cagggttttta caattttatt tatttcttgc 360
tactttaaga aattttttgt gtgaaataca tataatagaa gttgactatc tgaatcattt 420
ttaagtatac attcagtagt gtttaagtat tgcctattgt tgtacaacca atctccagaa 480
ctttttctac ttgcaaaaca aactctgtac ccattaaata acattaaaca ttccattccc 540
tccagcctca gcaaccccat tctactttct gtttctgtga gtttgactat tccaagcact 600

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tcatatcagt taaatcatga agtattttgtc tgtctgtgac tggcttattt ccttgagcac 660
agtgtcctcg ag 672

<210> 861
<211> 207
<212> DNA
<213> Homo sapiens

<400> 861
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caaaatatta atagcatatg atattataaa ttaatgatta gttttatgta ttgcagaaaa 120
tatttaacta tgcgtatttt tcttaataa tttttatggt tacaatttga cttagtaaag 180
gatgaaaaca aagtagcaaa actcgag 207

<210> 862
<211> 171
<212> DNA
<213> Homo sapiens

<400> 862
gaattcgcgg ccgcgtcgac taaacacatt atgatttttag taagacatat gcattattta 60
gacatgtact tcttaatat aaagatagta tttgtaattg gttttgacct tattcagact 120
atggttagag tacatactaa gcaagaatta aaggctttcc attttctcga g 171

<210> 863
<211> 235
<212> DNA
<213> Homo sapiens

<400> 863
gaattcgcgg ccgcgtcgac gtgttttcag aaagagaaaa catctcctgc aaagatctgt 60
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ggagactagc aggtgtcaaa gagaggcggg aaagtcctat atacctgatg taatcagtgc 180
cctcctctc ctggccgcag caggatgcct tcccttcaat gactcccaac tcgag 235

<210> 864
<211> 256
<212> DNA
<213> Homo sapiens

<400> 864
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tctttttact gttctcttac cccctttcac tctcacttca ctctctccat gctgctgtac 120
taccagttagc tctctctacc aagaggttct atggagaatg tggcttccca gaaatattga 180
tgtcccatcg tatagggggt tttctaaagg agacccact ttcaccaccc acaaccatat 240
acccccgaca ctcgag 256

<210> 865
<211> 265
<212> DNA
<213> Homo sapiens

<400> 865
gaattcgcgg ccgcgtcgac aattgacacg tcacactctg gtcagaagggt gtttaagtagt 60
tctgtttatt caaggaatga agtacaacca ctttagccca gtgtcaagg ttatactttc 120
cttactctgt accaattctc tagtctcacc atcgcaggct gcctgcggcc ctcagaccca 180
tcacatgcat tctgcctca gcgtctcctt tctgtgcaac acctgtcctt ctctggcac 240
taaccaaagt tcaccattcc tcgag 265

<210> 866

<211> 262
 <212> DNA
 <213> Homo sapiens

<400> 866
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 ctttgcatgt tatgttttat ttttctcttg ctgacaact tgtgccagag aaacattttt 120
 ctaccccttt ttgtctactc ttccaacctg tcaaactgtt gaattttctt tctcttttca 180
 tagtctctgc atttctaata atgttcaacta tagttcagtg ctgccaata gaactttctg 240
 ctgcggggag ggggtgctcg ag 262

<210> 867
 <211> 283
 <212> DNA
 <213> Homo sapiens

<400> 867
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 ggtttctatc ttcccccgac tgcccgctct cacagtcttg cttcttctgc ttttgectca 120
 tategtcagg tagctagttt cggttcagct gctctctcca gacagtttga tgcattctca 180
 ttcagccaag gccctgtgac tggcacttgt gctgactgga tcccacagtc ggcgtcttgt 240
 cccacaggac ctccccagaa cccacttct gcaccggctc gag 283

<210> 868
 <211> 219
 <212> DNA
 <213> Homo sapiens

<400> 868
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 tccctatcca gcctagacac cagtaactct tgtgttcaac aggaccaga ccttggcaa 120
 gggataggtt cgttgggtgac attgtgaatt tcagatttgt tttatccact tttttgtcta 180
 tttattttaa tggtcgatca acttcccaca acactcgag 219

<210> 869
 <211> 258
 <212> DNA
 <213> Homo sapiens

<400> 869
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 aaaaagtatt agtataaact ttaattagta tttcatcttt aaatgttttt ctggctctgt 120
 ccactgaaga agcttagaaa taatgaccaa atctgttaca tccataccat tgtgatctta 180
 aaatatcttt ttctactaga agaaatggct gggtgcagaa attgcttatt ccccatgggg 240
 caggaagtgc acctcgag 258

<210> 870
 <211> 298
 <212> DNA
 <213> Homo sapiens

<400> 870
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 tggttatgag caagccaatc ttttgaatct agagaatgga attcttaggt ttatatctct 120
 gttaagaaat actataaata tgactcttat gagaagactt tgttgctctg tagtgtttct 180
 gaatactgta tttgttggat tgatcaaggc tatttttcaa aaagctctct gtttctctgt 240
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<210> 871
 <211> 150

<212> DNA
<213> Homo sapiens

<400> 871

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gtagagattt tcttttttct ttgtgttaac tgctgtatcc tcagcacttg gaaaaagggc 120
ctggcacttt gggatgagcg aacactcgag 150

<210> 872

<211> 241

<212> DNA

<213> Homo sapiens

<400> 872

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gtatcattca gcttctcaga gttttgtgtt ttttgtctgt gtatgtgtgt gtgtgtgtgt 180
gtgtgtgtgt gtgtgtttaa aaacattttt tccttttgtt aggcacatg ctacactega 240
g 241

<210> 873

<211> 228

<212> DNA

<213> Homo sapiens

<400> 873

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ctctccctca gaagtctgcc catcctacaa ggagatgtgc aggacctcc accccgaaca 120
ggtaactgcg tgccttcac ctccatcacg cagcctgacc ctgtgagccc ctctgtgtct 180
tgtggacccg tcacctgag ctctcagtt gctgaaccac ccctcgag 228

<210> 874

<211> 178

<212> DNA

<213> Homo sapiens

<400> 874

gaattcgcgg ccgcgtcgac atattaactc aaaagaaata ggggtgatttt taaaggatta 60
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gttgctctct ttcattcaca cactctcagt ttctcatatt tgtagctcat tgctcgag 178

<210> 875

<211> 179

<212> DNA

<213> Homo sapiens

<400> 875

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cacaataata atagctgctt atgcttatgg agcattgcca tgtgctagat aggcaccatc 120
ctcagccctt ggcaggctct agctccttta tttcttccaa tcaacactgt oagctcgag 179

<210> 876

<211> 214

<212> DNA

<213> Homo sapiens

<400> 876

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gggtgatttt tctgggtcaat atacagaaat aagaatgata atgaaagtga taatgatagg 120
aataataata ggaagagtag tgactttttg tctttgtgta tcaattcatt caacaaattt 180

gaccaagtgc ctgctacatg ccaaagcact cgag

214

<210> 877
<211> 436
<212> DNA
<213> Homo sapiens

<400> 877
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aatgtctaac ttattttaacc ctttcatttc aaactgcaaa ttaaagcatg tatttacata 180
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ttataagtgg tatggtaacta tgctatatat atcctcttcc aaaagtctct taggacttgg 300
taagtcccaa atattcattc acaaatgggt cccctttaag cttaatgaac catatacttc 360
atttctgagt aaatttaggg aaatattaca gaacacgctt tgtacaatac agcaccacta 420
ctgagaaggg ctcgag 436

<210> 878
<211> 174
<212> DNA
<213> Homo sapiens

<400> 878
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ttttaaaaaa ttacattggc cagtattagg ttcctgatgc gtatttgggtg ttttgtttgt 120
actgctgggt ttttctctc cagtattgga tgcgttaacg gggatgcact cgag 174

<210> 879
<211> 229
<212> DNA
<213> Homo sapiens

<400> 879
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aattaaaagc acaatagtta ttggttgctt attgaataaa atcaggagtt ttaataatat 120
tggtgtgtgg caccttgatg gatgggacca cagtatgaag gctgtagtaa tccagcatga 180
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<210> 880
<211> 110
<212> DNA
<213> Homo sapiens

<400> 880
gaattcgcgg ccgctcgac atttatctga tcttttacag aaaaagtttg ctaacctttg 60
ataacagata ctctaaaatg caggtttttc ttcttcaatt ggtgctcgag 110

<210> 881
<211> 239
<212> DNA
<213> Homo sapiens

<400> 881
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ttttagcttt gtcgatgggt ttctgttgta aattttgggt caggtttaat gtgaacaatg 180
gttatgagac gagtgccatg agttcctgtg tgcctgtcac ccagcccggt acgctcgag 239

<210> 882
<211> 159

<212> DNA

<213> Homo sapiens

<400> 882

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 ttgacttgag ttctctcagt gggaagaatg ggaaagattt acagcttcgt cctggtcgcc 120
 attgctctga tgatgggaag ggaagggttg gccctcgag 159

<210> 883

<211> 121

<212> DNA

<213> Homo sapiens

<400> 883

gaattcgagg ccgcgtcgac ggggtctctt gcttttgttc ctctaaaaac tggctctgcta 60
 actttttaat attttcttca tgctgtgctc tcaattcctt catctgctgt ccacactcga 120
 g 121

<210> 884

<211> 257

<212> DNA

<213> Homo sapiens

<400> 884

gaattcgagg ccgcgtcgac cctagcttga atttgaaaca acagcacatc ttaatttgga 60
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 agtagatgta catatccaaa ttgtcccaaa catgcttaaa atttttccag tatgtatggt 180
 gttttaaaat attttatattt ttgttgttgt tggttgttgt ttttaagatg gatttttgc 240
 cttgtcacc cctcgag † 257

<210> 885

<211> 141

<212> DNA

<213> Homo sapiens

<400> 885

gaattcgagg ccgcgtcgac gtctctctct gagctctatt tgcttcagt caacatgaag 60
 ttcatgaccc agtcgcctt tgagagggca cttccgatc tcaacgtgg cctcgcctcc 120
 ctccacccca gacaactcga g 141

<210> 886

<211> 286

<212> DNA

<213> Homo sapiens

<400> 886

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 gtctgctact tctttgattg gggctttgat cctgaacca gaagtgaata ttgaagttct 120
 ccagaagcca ttcattctgc atcgcaagac caaaggagg gatttgatgt tggccacta 180
 tgaaggctac ttagaaaagg acggtcctt atttctctcc actcacaac ataacaatgg 240
 tcagcccat tggtttacct tgggcatcct ggaggctcgg ctcgag 286

<210> 887

<211> 264

<212> DNA

<213> Homo sapiens

<400> 887

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 gatgctcaac aagcggtagt tatgataatg gcagggaacg cgggtgggtt gcttgccttg 120

ttttctgcgt gttttggcgg tctgcaaggg gagagcagcc agcaggcagg gcacctgtgt 180
 acgtcgatga ctgaccaccc catggtaccc cagatctatc tccccaaaac actattcttt 240
 ctgcctggga cccattctct cgag 264

<210> 888

<211> 290

<212> DNA

<213> Homo sapiens

<400> 888

gaattcggcc aaagaggcct atgaagcagg cgctcttggc tcggcgccgc ccgctgcaat 60
 ccgtggagga acgcgccgcc gagccaccat catgcctggg cacttacagg aaggcttcgg 120
 ctgctgggtc accaaccgat tcgaccagtt atttgacgac gaatcggacc ctttcgaggt 180
 gctgaaggca gcagagaaca agaaaaaaga agccggcggg ggccggcgtt ggggccctgg 240
 ggccaagagc gcagctcagg ccgcggccca gaccaactcc aggcctcgag 290

<210> 889

<211> 243

<212> DNA

<213> Homo sapiens

<400> 889

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 atgagttttt cttctatttc ttgctgtcga atttttcgct gccgctcgaa ctccgcttcc 120
 ttctctctct cctctcgctt ctgcttctcg tccaggctgc tgcgcttgc cctcacgttt 180
 tgcacgttct tcctctctct tagctttttg tgcggcaagc tcagcttgc tctgtcgtc 240
 gag 243

<210> 890

<211> 241

<212> DNA

<213> Homo sapiens

<400> 890

gaattcggcc aaagaggcct aagctgggtg cattacacgt caacctgcct tgagccaagt 60
 cctgcttcac ctgcagcgcg aacagggtacc ttgtgagttc ttcttgaggt tgtgtgtggt 120
 caggcggaaa gaatttcacc acaaaactta caacaacgtg ctttggcctt ctaatctgtt 180
 tcacaatggg ttttaggaga tccagccaca ccgtgatctt tttgtgatca ggaaactcga 240
 g 241

<210> 891

<211> 431

<212> DNA

<213> Homo sapiens

<400> 891

gaattcgcca aagaggccta aaaatctctg ttttaataca agataaccac atcaagatgg 60
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 tttacctggg ccagcatgcc atggaatgcc atcaccggat agaggaacgt agccagccag 180
 tcaaatggga gagcacaagg accactgtga gaactggcct ggacctcaaa gccaaacaaa 240
 cctttgccta tcacaaagat atgcctttta tttttatttg aggtgtgcct cggagtggaa 300
 ccacactcat gagggccatg ctggacgcac atcctgacat tcgctgtgga gaggaacca 360
 gggtcattcc ccgaatcctg gccctgaagc agatgtgggc acggtcaagt aaagagaaga 420
 tcaagctcga g 431

<210> 892

<211> 384

<212> DNA

<213> Homo sapiens

<400> 892

gaattcggcc aaagaggcct agtctgtcct gttgtgtggg gcgaagtgat ggactctgcc 60
 aggtggacat gctgtgggtg gatgttcccg gcgtgtgccg ggcttgaatg gacaggggcc 120
 acttcacagc atgtcagggg aaatcactgt cacacaattc caatggattt tgtgtctctt 180
 ttgaaaaaaa aaaattcttt agcgtaaaca tgaatttttt ttcaatgtag cccctgggga 240
 atgaatgaaa ttttgagctt cttcaatacg caaaattaaa ttataccac tgaggagag 300
 accctttctg aaagaagtat ggccaaaagc actttaatgc tgcagacatt gttgttttta 360
 tgttcatttg ctggagcgcg cgag 384

<210> 893

<211> 208

<212> DNA

<213> Homo sapiens

<400> 893

gaattcggcc aaagaggcct agtggggcct ggctatctag aaaccaccgc aatggctgga 60
 gccaaatttg gtcaatgggg taaacatttc agaaggtagg cagggcatgc cctgaggcca 120
 ggaggcctct gcggtcctgg ctgtgtcctc aggatggcca attctcacag aaaccaccac 180
 aaggaaagat ctccctgggac gactcgag 208

<210> 894

<211> 479

<212> DNA

<213> Homo sapiens

<400> 894

gaattcgcgg ccgcgtcgac atcaatatct gtattatggt gctatatatt ggtaatgac 60
 ctttaatat gggaaaggat tttaaaaata ctgtgattaa actgggttct tcctttgatt 120
 ttcatatttt aaataaagcc acagtcattt atacaaaaga aaagcatctg tccctgggca 180
 aatcttttga ggacagaggt caaagtaaac tgcataaggt ttttacatca tttctgtatg 240
 tatttgatat atagatcaat atctgtacaa atttaatctt ttattttctt ggtaactcgt 300
 gatcattgag aaagtgtttg aaactttctc atgaagtgt tatataatgg cgtgaaaaat 360
 tcctttggaa aaatttatgt tcctttcatt tttaccaaat tgcaaatctt cagcatggat 420
 gtgaaaagca ttaaaattat aactttgtgt acaagatgaa aataattcac acactcgag 479

<210> 895

<211> 386

<212> DNA

<213> Homo sapiens

<400> 895

gaattcgcgg ccgcgtcgac atcaaaaatg agggatgtaa gtttcaatgt gagtatttct 60
 gaatagtttt tttcaaatgc agccaagtca gtaatactct gttgtaactt tagatagggt 120
 atctatgaat taaaaatccc tgaatgtgac attactctaa aatcttgcct cttgaactgg 180
 agagcactgt tgttttcttg taggaggtcc atgaagcatg cattagaggt agcttctttt 240
 cctggaggaa gatttggatg agtatgtatt ttttatattg aaacagacat gaataatatt 300
 tggagatgaa agtaaaacta gcaggaatgt taagaaaaaa cttaaaattg ctttaagta 360
 taatgtcgaa tccccgaat ctcgag 386

<210> 896

<211> 202

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (40)..(41)

<220>

<221> unsure

<222> (62)

<400> 896

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 tntttgggta caagccttga gcatgtcagg cagcttctac ttttgtactc ttgggagctc 120
 tgagttgctg ccgtgcaaga agctgtcata ccttgctgga gagatgatgt ggagaggaag 180
 agattccagg acagtactcg ag 202

<210> 897

<211> 266

<212> DNA

<213> Homo sapiens

<400> 897

gaattcgcg cgcgctcgac cacagacttc tccactgata tctatgtag tatttatcca 60
 gcttcttact tggatatgc acttggattt ttataaggta tctcaaactt aatattgtcca 120
 aaactaaact tctgattctc tgtatacttc cagcttgctt ctcccacagt gtttccaatc 180
 tcagtaaatg gcaaccttat ccttctagtc ctttaggcca aaagcttgga atcaactctc 240
 cttttctttc cccacatccc ctgag 266

<210> 898

<211> 180

<212> DNA

<213> Homo sapiens

<400> 898

gaattcgcg cgcgctcgac cttgcattgc gtggtttttag ggaagcaggg totggctttt 60
 aatatgaact gcaaaaagca gcttctcact gatatttttt tgttgttgtt tctggggggg 120
 ttttttgttt tgtttttaat gcctttgagt gcatattttt ttctcgtct gaaactcgag 180

<210> 899

<211> 200

<212> DNA

<213> Homo sapiens

<400> 899

gaattcgcg cgcgctcgac atggggccact acactccagc ctgggtgaca gagcgagact 60
 ccatctcaaa aataaaaaga gttgctagaa aaggtagaac ccacatttct ctgggttcca 120
 aagcctgtgt tctttctgct gtattatgct tttttataac aaccaggeta atatatetta 180
 aataccatcg tacactcgag 200

<210> 900

<211> 163

<212> DNA

<213> Homo sapiens

<400> 900

gaattcgcg cgcgctcgac cagaaagtgt agctctgaac aaggggacca ctatggctag 60
 agagggccgt ggagctgagg gtgggatttt gttttgtttt gttttgtttt gtttttgttt 120
 ttttgagaca aagtgttgc ctgtctocca agctggactc gag 163

<210> 901

<211> 186

<212> DNA

<213> Homo sapiens

<400> 901

gaattcgcg cgcgctcgac gtactgtaac atgaaagcgt tgctcgacta ccttccgctg 60
 attatcttct tctactttta taaaacgacc gatacctaaag atagtcaaca tccccttctc 120
 caattgggtg gttagcgagg aaatactgat caaatcata ttcttgtttc aacaggcgca 180

ctcgag

186

<210> 902

<211> 212

<212> DNA

<213> Homo sapiens

<400> 902

gaattcgcg cgcgctcgac ttcactctct tgatgctctg cattttctct cttaactoga 60
cccacagtag accctcccac tcaaactctgc ccccaatacc ctttgcaacc aatattaccg 120
cactacactt tatcttccct aagggtttcc tgctcctcct ggtcttaggt gaggtcattt 180
ctctgccagc ctttaaagtg gaagccctcg ag 212

<210> 903

<211> 192

<212> DNA

<213> Homo sapiens

<400> 903

gaattcgcg cgcgctcgac gtttattaaa aaaaaaaaaa gaagaagaaa gcttcgagag 60
attattgggtc tcaggaaagt caagttaaat atgcaaattt aatgaataat aggaattac 120
ttaaatatct ttaattttat aagcttcctt atgacagttc ttatccactg tattctttcg 180
gtctcctcta ta 192

<210> 904

<211> 196

<212> DNA

<213> Homo sapiens

<400> 904

gaattcgcg cgcgctcgac tgtaaattga ggttcctcat ttccttatga ccaccaagat 60
gcaccttttc ctattttgga ctctaattcc agcagctgtg tttaaacctc ctggagattt 120
acagaaatac gtcttgccat tctgtgttca ttcgccagat tcattgctag ttgggataca 180
agcaagccga ctcgag 196

<210> 905

<211> 259

<212> DNA

<213> Homo sapiens

<400> 905

gaattcgcg cgcgctcgac tttgtttcaa agacaattcg aattgccttc tgaaagtcta 60
aatttgctag actaacattc agaattctcag tctgggtctct ctttctagca atagctcctg 120
ctttttctta catgagtact ggttccagat catctagatg cttttgtttt ctccatatgt 180
cttgggcatt cctttctgtg tctgcatgct gtttctctcc ctcagatgtt gtctcccaaa 240
ctcccataaa agtctcgag 259

<210> 906

<211> 208

<212> DNA

<213> Homo sapiens

<400> 906

gaattcgcg cgcgctcgac cctagctccc ccgaaatttt aagactattt acctagattc 60
ggagatgggtc ttggagagtt ccaaaagggg tgtgtgtgtg tctgtgtgtg tgtctgtgtg 120
tgtgtctgtg tgtgtgtctg tgtgtgtgtc tgtgtgtcta atatttagac taaaccatgg 180
taaattgtacg caccagtaa acctcgag 208

<210> 907

<211> 212

<212> DNA

<213> Homo sapiens

<400> 907

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gaattcgcg cgcgctcgac ctaccagtgg acattttgag aatattgcag ttgtttttct 60
tctgaaagag taaaccaatt tggttactca ttttaccaat ttggttttga ttttgcaagt 120
ggttacaact catgagagga ttcttatttc tgatcaatat attgtgtttt tggaaaggac 180
ttctgggaaa taattatgat gaagccctcg ag 212

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<210> 908

<211> 137

<212> DNA

<213> Homo sapiens

<400> 908

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gaattcgcg cgcgctcgac ggagaagatt aatagatggg acagaaactg cctttgatta 60
accatcaggt tctaggggtt gtgataggca caacatatat attctacttt tggctattga 120
gggggggtcaa cctcgag 137

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<210> 909

<211> 209

<212> DNA

<213> Homo sapiens

<400> 909

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gaattcgcg cgcgctcgac taaattcaca agaaaaatac ttgctttttc tcccttttaa 60
tacgaatctt aactgctggt atccttaaaa cctctgaagt tgatgaatga ctttttttaa 120
aaatgaattt atgggttctt aacatgtatt tgtgttttat tttagtcctt atttgtttta 180
gtgttcacat ctgcgccagg ctactcgag 209

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<210> 910

<211> 392

<212> DNA

<213> Homo sapiens

<400> 910

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gaattcgcg cgcgctcgac atactttttc cttcttatga cgtttttaa catttggtca 60
gttattttaa aaagtccaag tgagggttta atcctattta aatctaccac atataatctg 120
gtgtgtgtat gtatttgtat gtctcattgt gttttatgaa taaagatata tctcatctt 180
tgtcaagcaa actacaaagt attagataat actttctcta gttttctaag catccattaa 240
taatttatag tatggacatg aagatgtttt tctgtgcttt tgtgtgtgtt gttgtgtgtt 300
gtttttttga gacaagggtc ctctctgtca cccagggtcg agtgcagtgg caggatcatg 360
gcctactgca gcctccacca gccaggctcg ag 392

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<210> 911

<211> 192

<212> DNA

<213> Homo sapiens

<400> 911

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gaattcgcg cgcgctcgac gagacacata accttcta atcttagaaga gtattttctt 60
tggcaccaca caagccctat atagcaggaa ggaatatga gggtcagaaa gagtctagtc 120
tcagtcttac ctttaacttc actgtgtgac cctggaaaaa tatctttctt ctctactccc 180
actcaactcg ag 192

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<210> 912

<211> 226

<212> DNA

<213> Homo sapiens

<400> 912
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 gacaaaataa tcttaaatc ttataatctt tcaacttaag tccttttttt ataagctttg 120
 ttttatttcc ttactttact ttgatocctt cccagtcctt cagaatttta acttctatat 180
 catggtttta ccttgccaat tcccatatta ccttcccttc ctcgag 226

<210> 913
 <211> 465
 <212> DNA
 <213> Homo sapiens

<400> 913
 gaattcgcgg ccgcgtcgac cggagtctcg gggtcgcgtg cacctgggag gccagggagg 60
 ctccagtgc cgggagaaag gcaagaaaac tgaggcacag agagattgtc acacagccag 120
 ttgtagttaa caaagtttta ttccagaagg aaaaaagcca cttcacctag aaattttgca 180
 aacaaatcaa cttttactct gtgagtaatc cagggcctat caagactaca ttttagttga 240
 ctgcaaggcc tctgaggcac gggaaattcac agctgagttc ttggagaagg tccttgagcc 300
 atctggatgg cggacagtct ggcacatgat gtgctcaagg tgctgcttga ggccacagat 360
 gtggacattt cagccttgaa ggcagtgtg cagottgtct agccatacct ctgtgaatct 420
 tgagcgagta ctttcacctt ggagtgtgtg aaagagctcc tcgag 465

<210> 914
 <211> 172
 <212> DNA
 <213> Homo sapiens

<400> 914
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 aaagtaaaact ataaacttgt acaaattggt tttaaaaaa attgctgcca cttttttttg 120
 ctgtttttgt ttcgtttttg tagccttgac attcaccac gcaacccctg ag 172

<210> 915
 <211> 185
 <212> DNA
 <213> Homo sapiens

<400> 915
 gaattcgcgg ccgcgtcgac gtcctgcaa tttacagtga gcttaagac cgatcacaga 60
 aaaaaatgca gatggtttca aacatctcct ttttcgcat gtttggtatg tacttcttga 120
 ctgccatttt tggctacttg acattctatg acaacgtgca gtccgacctc cttcacaanc 180
 tcgag 185

<210> 916
 <211> 219
 <212> DNA
 <213> Homo sapiens

<400> 916
 gaattcgcgg ccgcgtcgac aaaatattct attgtaagtt tggtttatta atttattttg 60
 tggattacag taatgctttt gttggcctgt tgtatgacaa actattttaa gggtcacatt 120
 ttgatttgta tttgccaaca agcctttttg cttgttaaag ctatagctaa ctctcaggag 180
 ataattgcag ttctactctt agaggatggc tgcctcgag 219

<210> 917
 <211> 270
 <212> DNA
 <213> Homo sapiens

<400> 917
 gaattcgcgg ccgcgtcgac gaaatacagt gtatatatca ttgtatagta cataaagcac 60

tgaatgatac atttataatc agaattttta aaaaatcctt agatttatag tcagaaaaaa 120
 agactttag agattagaaa gattatggat tactttgagg ctatgaaaat tgataattct 180
 ttaatttcaa cagtcagata tatgttagtg ttttagagtac ttttcagctt tctattagaa 240
 catccgaaag ttaggggaca gaagctcgag 270

<210> 918
 <211> 154
 <212> DNA
 <213> Homo sapiens

<400> 918
 gaattcgcgg ccgcgtcgac tgtaatttag ttttctcgag ttccatttag gtatcatttt 60
 aatacttaga aaggaacaca aagatttttt tcaatgaga aaactttcag cttttatcaa 120
 atatttattc attcaaaca cagtagctct cgag 154

<210> 919
 <211> 210
 <212> DNA
 <213> Homo sapiens

<400> 919
 gaattcgcgg ccgcgtcgac gacagggctt tgctgtgta ctcaggctga tctcaaactc 60
 ctggcctcaa gcttcctccc accttggcct cccaaagttc tctaataatca tttattgaaa 120
 ggctttacct gttgaaacac ctaggtagct atattgaaaa tcaatccatc atatatgcat 180
 gggctcaaaa ttttgaactg tattctcgag 210

<210> 920
 <211> 551
 <212> DNA
 <213> Homo sapiens

<400> 920
 gaattcgcgg ccgcgtcgac gatgttttca acgtttcttt gtcttttget gaagtcagga 60
 tagattcaag acataatctc ttgtaagarc taaatagagc aaatgtaaac aaaagtgcac 120
 ttttgtatcc ttgttaattt tagatgcttt cctagcttac aaaaagtctt atttttgggt 180
 taaaaatcaa tcaactttct gatatttccc cttctgcaat gttattgttc ataagaaaac 240
 acgagctgaa aatggaaatc tgcagttggt tcagttgtct tgaatttctt tcagtggcca 300
 catcatttcc acgttttcca catccgggag gaagcctgga ctgtgcagcc ttcgggtacc 360
 cggcacagac actgtgtgtg caggagcttc agacacgcca agtggatgga tttggattga 420
 acgcataatga aacaggagac gggttctcat gtgagatcaa agctcctcca aagcctgttc 480
 aagctctaag cgatttctca atgttaccat ttattaaagg taaactacac ctgttgaagc 540
 ccgcgtcga g 551

<210> 921
 <211> 164
 <212> DNA
 <213> Homo sapiens

<400> 921
 gaattcgcgg ccgcgtcgac ctgccccggg gtgtgatgtt cccctccctg tgtccatag 60
 ttctcattga aacaatgatt ctcttaaca actetcaaat ctgcccactt ggctacatgc 120
 ttttgcaata ttccagacca aattaccatg atctgtcact cgag 164

<210> 922
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 922
 gaattcgcgg ccgcgtcgac ctctgtctta aaaaaaaaaa aaaaaaaaaa aaaaagttaa 60

tggatctttt gatacagatt gaaaaagcct ttattcaaca cctaaaatgt gtcagggtgt 120
ttggctttgt actaacatgg ttactgatta ttatggtttt atccctttta aaatacaag 180
aagcagggtct cgag 194

<210> 923
<211> 200
<212> DNA
<213> Homo sapiens

<400> 923
gaattcgagg ccgcgtcgac gagatgcttg aggtgcagtg ttggggatcc agagccatgt 60
cggacctgtct actactgggc ctgattgggg gctgactctt ctactgctg ctgacgctgc 120
tggcctttgc cgggtactca gggctactgg ctgggggtga agtgagtgtt gggtcacccc 180
ccatccgcaa cgtactcgag 200

<210> 924
<211> 158
<212> DNA
<213> Homo sapiens

<400> 924
gaattcgagg ccgcgtcgac ctactacctc accgagaact cctccaccac tgactgttca 60
ggatccctta tgcctgcag tttgtccctt agaagaatta tctccagata gtattgatgc 120
acatacgttt gattttgaaa ctatcccca tctcgag 158

<210> 925
<211> 187
<212> DNA
<213> Homo sapiens

<400> 925
gaattcgagg ccgcgtcgac gtgtcacagt catcaacatt ttttgtgtaa gcagaaactt 60
tattgtgtgc tagttactta atatcagtgt ttattccatt ttcttcatta tcatattcca 120
tattataata attagatgtg aagacatgca ctttcgtgta ttgagtattt ataggatcag 180
tctcgag 187

<210> 926
<211> 164
<212> DNA
<213> Homo sapiens

<400> 926
gaattcgagg ccgcgtcgac aaatagtatt ttaaaagaga ttattgggta cgtgcttctg 60
gtttttaaaa ttcctggaga aatcatatgc tgtgatcaac catagcgtg tttttttttt 120
aatagcagga aatgtatata agtctattac cgcacttact cgag 164

<210> 927
<211> 192
<212> DNA
<213> Homo sapiens

<400> 927
gaattcgagg ccgcgtcgac cttgcttcag aaattgaaat ctgaaggacg tcgggtgtgt 60
attttatcac agatgattct tatgttgac attttagaga tgttcttgaa cttccattac 120
ctcacctatg taagaatcga tgaaaatgcc agcagtgagc aacggcagga actgatgagg 180
agtccccctg ag 192

<210> 928
<211> 167
<212> DNA

<213> Homo sapiens

<400> 928

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctgagacctg 60
 accaaccatgg tgaaatgctc tctctcctaa aaaaaaaaaa tttatatata tatatcagcc 120
 aggtgtgggtg gcacgtgctt gtgatcccgag ctacgctgga gctcgag 167

<210> 929

<211> 144

<212> DNA

<213> Homo sapiens

<400> 929

gaattcgcgg ccgcgtcgac acctcctcca tttaaataaa ctgggtgactt tccttttatt 60
 ttttaaaagt ggaaaccgt tgtgtgcctc tcgatttaag ggtttctgat gacattattc 120
 ttaagaccag cattgatcct cgag 144

<210> 930

<211> 213

<212> DNA

<213> Homo sapiens

<400> 930

gaattcgcgg ccgcgtcgac agtttttgca tgtaaagtgt ttcatagtag ccttgaatga 60
 tattttgtct ttcgggtgggt tcaggtgtaa tagctcccat tttgtttatc ttttcaaaga 120
 accagctttt tttgtttcat ttatcttttc tattttttta tttttgttcc aatttcattt 180
 agttctgctc tgatgagaat gctacttctc gag 213

<210> 931

<211> 252

<212> DNA

<213> Homo sapiens

<400> 931

gaattcgcgg ccgcgtcgac cctaaaccgt caattaatat tactgcctac ttggagcttc 60
 aagtctaatt tggggaaaat aaagagcaac agaaaagaga acacttggtc caacacataa 120
 aaagggtgat aatattttttag agagtgtggg tagacttgaa tattatttgt ttagaacctg 180
 aatctcaagt ctaagtctgt aacaagattt ctcttcaga tgatgaggag tctgatgagg 240
 agagctctcg ag 252

<210> 932

<211> 437

<212> DNA

<213> Homo sapiens

<400> 932

gaattcgcgg ccgcgtcgac gcggggcggc cggcatggag ctcccggagg cggggcaggg 60
 tcaggagctc ggtggcatgg cggcgggtggc tgccccgatt tcctccagct gccactcctt 120
 gcttcgtgtc cccgggtcct agacgcctcg tctctcccg tgtccctctt cccatggagt 180
 cagtacggat cgaacagatg ctgagcttgc ccgcccagggt cagcagcgac aacttggagt 240
 cggcgggagcg aggggcatca gcggcccaag tagacatggg cccccaccca aagggtggctg 300
 cagagggccc cgcacctcta ccgacgcggg agccagagca agagcagctc ccggggacct 360
 caacgccgga gagcaaagtc ctgctcacgc aggcagacgc cttggcgctc cgggggagaa 420
 tccgtgaagc cctcgag 437

<210> 933

<211> 137

<212> DNA

<213> Homo sapiens

<400> 933

gaattcgcg cgcgctcgac ctataagctg ttgcaacttt aggttcctca atggatacaa 60
aatttggcat tatactggct ctatcttgca caagtatgat gtgccatcaa atgcagaatt 120
atagcaggaa tctcgag 137

<210> 934

<211> 190

<212> DNA

<213> Homo sapiens

<400> 934

gaattcgcg cgcgctcgac gttttgtaac aaaaattccc aaccatatat gcacttatag 60
ggaaacaaag gaccatcgac aaatgtttcc catgctgac tccaaagtgg tgagtattatg 120
tgtgattttt attttgttta tgctcttcgg tattttccga atttcataca ataaatatct 180
gttactcgag 190

<210> 935

<211> 169

<212> DNA

<213> Homo sapiens

<400> 935

gaattcgcg cgcgctcgac aggtccattt catctaagtt gtcacattta tgtgtgtaga 60
atttttcata gcattcacct tacttacctt tttaatgcca tgggggtttg caatgatagt 120
ctctgatatt gcagatttta gtgatgtgtg ttttccccc cgcctcgag 169

<210> 936

<211> 159

<212> DNA

<213> Homo sapiens

<400> 936

gaattcgcg cgcgctcgac cttttccccc cgcccattcc cttcattttt gcccctcttt 60
gcctgggtgt gaatgggctg ctcttcttcc accatcatca gtttcattgt tttctctttt 120
ctttttaaaa ctgtattttc tttgtgcggc actctcgag 159

<210> 937

<211> 234

<212> DNA

<213> Homo sapiens

<400> 937

gaattcgcg cgcgctcgac atattgaaaa attcaggga tttttaaaat ttattttatt 60
cctcaaatat atttaaatat tagttctgtt atcttgtttt ggttttcttt tttaggtagc 120
ccaatgatgc atatgttgac tgtgctgtgg ttgtttcttg cgaattttat tttaccagt 180
cactgttttc agtgttgtct ttttcttacc caacattctg caaagtcact cgag 234

<210> 938

<211> 152

<212> DNA

<213> Homo sapiens

<400> 938

gaattcgcg cgcgctcgac atattatttc acatcattgt tttcgtcctt tttattttca 60
tttctgtct ctaatttaga cccttattac catcacctg gtttatgttc acagtctcct 120
aaatgatctc cttcataccg ctagtactcg ag 152

<210> 939

<211> 275

<212> DNA

<213> Homo sapiens

<400> 939

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gaattcgcgg ccgcgtcgac catagccttc ctctgtctt actcatgaga ctgectccat 60
ttcttccttc tgcaaccctg ctctatcag ctgaaccctt ctttcggagt gttagttagt 120
acccgtctct cccagcccc tcagctggtg ggctgggtg tgtcagcggc aaatggggct 180
ctggttccaa tggggcactc tcctctctct cttgttctt gtgcagaaaa cctttgcttc 240
actccactgc cctctctagt tcccgatccc tcgag 275
```

<210> 940

<211> 246

<212> DNA

<213> Homo sapiens

<400> 940

```
gaattcgcgg ccgcgtcgac caacaacaaa aaaaagactt tattctctgt tgtcagtgtg 60
tgtaaccctt ttattgcat ttaatttcta cagggtgttag tctactatta tttttgttcc 120
agtatctcat caagtcaaat aagcacagag taagaatttc aaagctagag agggctgaca 180
ataatagaaa acagaaacat actcaatata tactccttc tcatatgaa gctggggcra 240
ctcgag 246
```

<210> 941

<211> 168

<212> DNA

<213> Homo sapiens

<400> 941

```
gaattcgcgg ccgcgtcgac atttaattaa tcaattcaag acatttttga tattacagct 60
tttgtcttta ggtggagctg ttaaagttaa ataagtgtga atatctgtca aatacagttt 120
ttgcaagagt gcatgtacat tttatatatt gtaagaaaag ctctcgag 168
```

<210> 942

<211> 205

<212> DNA

<213> Homo sapiens

<400> 942

```
gaattcgcgg ccgcgtcgac gaagccttct gtaccatctt acgaatttct gtcttcataa 60
tataagttaa aatactgtca tttcaatttt ctgctttaa ttgtttttaa taagcattcc 120
aaagtgtata agacttaagc ttttaataaa tcagtcattc agttgataga caaagtttagc 180
gatgctttat gctaggatac tcgag 205
```

<210> 943

<211> 188

<212> DNA

<213> Homo sapiens

<400> 943

```
gaattcgcgg ccgcgtcgac ctgagcattc cagccggggc atcctgtgaa aatgatgtta 60
ctttatcttt cagttttttt cttctcctta tccaggacac atccccacca gacaccagct 120
cctctgccca atccaggcct ctatccccc cagtggtcca tgtctccagg acagccactc 180
acctcgag 188
```

<210> 944

<211> 241

<212> DNA

<213> Homo sapiens

<400> 944

```
gaattcgcgg ccgcgtcgac gaatcatata gtatatagac ttttcagatt ggcttcttcc 60
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acttagtgac atttatTTaa atttcctaatt gtctttttat agtttgatag ctttttttta 120
 ttcttttaaat tttttttttc ctgctgcctc tctaattgca gaaagctcat ttatttttag 180
 cacatttcat ttgatattc cattatcrgg gtgtaacaga gtttctccat atcacctcga 240
 g 241

<210> 945
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 945
 gaattcgcgg ccgcgtcgac caggtactac catgtttctg cattggctag tgggaatggt 60
 atatgtcttc tactttgcct ccttcattct actactgaga gaggtacttc gacctggtgt 120
 cctgtggttt ctaaggaatt tgaatgatcc agatttcaat ccagtacagg aaatgatcca 180
 tttgccaata tataggcatc tccgaagatt tattttgtca gtgattgtct ttggctccat 240
 tgtctcctg atgctttggc ttcctatagc tataattaag agtgtgctgc ctaattttct 300
 tccatacaat gtcagtctct acagtgaagc tccagtgaat gaactgtccc tcgag 355

<210> 946
 <211> 187
 <212> DNA
 <213> Homo sapiens

<400> 946
 gaattcgcgg ccgcgtcgac gggaaagctta gagcaggaat tcccttaaga cgggtgtgata 60
 gactctttta aagaaaaaat attcagttct taacactcgt taaagcatgc aaaggaagac 120
 tttattcagg atcatcgtga taggtattgg aagcacagca gtgagatttt gcaatggggc 180
 actcgag 187

<210> 947
 <211> 298
 <212> DNA
 <213> Homo sapiens

<400> 947
 gaattcgcgg ccgcgtcgac ggaaaagaat cttaatgcag ctatcaagac ccagttagat 60
 gtgttttagct ttgtcactac acttaaggag ggcatttttt atttttaacc aaaaggggac 120
 agaaagctta gtgaggagtt tagaagccct accctttcaa gaagtgttga tggaaattgaa 180
 gacaaaccca ggagaaggga acacgagggt gaggagaaca ggggtggcctt cagacaccca 240
 ggccaacaca tgtcaagggt tagacttact ggaaaactcc agagcgtga acctcgag 298

<210> 948
 <211> 214
 <212> DNA
 <213> Homo sapiens

<400> 948
 gaattcgcgg ccgcgtcgac aaacaaaca aatttcctac ctccaggatcc aaaagatatt 60
 atccttatatt gtctcctaaa agttttatag cctagccttt tacatttagg ttcttaatte 120
 ttaatccacc tggaaataagt ttttgtatat ttttaaaagt agagggtttta tctcattttt 180
 cccgatagat atgcaattat cctgtacct cgag 214

<210> 949
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 949
 gaattcgcgg ccgcgtcgac tgcagattgg ctccgagccc ctgacacat gtatttggtg 60
 gactttgtga agccagaatt tctcttgctt aggacacttg ctgatgcct gattttgtgg 120

gatgatattt taccaaattc caagtgggtt gacagcaatg ttcttcaaat tataagagaa 180
aatagtatct ctctcagtga aatcgaatgt ctcgag 216

<210> 950
<211> 272
<212> DNA
<213> Homo sapiens

<400> 950
gaattcgcgg ccgcgtcgac agtatctgtt tctttttaaatt ggagcaggac tttaaatga 60
ttacaaaatc attctatatt actttttttt tattccagcc ctttacagct gtctcaccta 120
ttcataattc agtagcagct ttttcttcaa gatactcatc ttttttgcac tcatgtttca 180
ctagtttatg cagtaattta gataatttag ttactagcgt gactacacct accacaaaca 240
acatgggaat aaacaaaacc gaatcactcg ag 272

<210> 951
<211> 224
<212> DNA
<213> Homo sapiens

<400> 951
gaattcgcgg ccgcgtcgac atataagagc acgttgtaaa cttgaaagag acaaaggcac 60
aaatgtggct gttgattaat ttgactgctt ctctgtgtct gtcacctcca tgccatgcac 120
tgtgttctgt aattgtctta tggggggcatt ctcttattta ttccccagcc ctggggaata 180
ggagctgtca ttatccttct ctttctgcac aaggaaaact cgag 224

<210> 952
<211> 164
<212> DNA
<213> Homo sapiens

<400> 952
gaattcgcgg ccgcgtcgac gggggagcag gataaaagcg gtctttcagt ttttattata 60
tgtcattctc ctatgttttt caaatcatta ttctatgtct cttctcagta aggcctatcc 120
tgaccaactc atctaaaatt acaacttccc accacactct cgag 164

<210> 953
<211> 210
<212> DNA
<213> Homo sapiens

<400> 953
gaattcgcgg ccgcgtcgac gcattttgtg ttttctctacg tggctcattt cagccaggta 60
tagttttctg tgttcacctg gtatttctta cagacaaaaa tcatgaaaaa ggaatgcaa 120
aatttcagta tgttcaaat gttctcttagt atatcgttgg ctttggaatg catttgcatt 180
ctcaaaaaca gtttcacagc aaaactcgag 210

<210> 954
<211> 191
<212> DNA
<213> Homo sapiens

<400> 954
gaattcgcgg ccgcgtcgac ataaaattac gtcattatto atttgttcat tcattcaaca 60
aatttttgat gaagtaaaat aatagtataa gcataacaac tgctatttat tgaacactta 120
atatgtcca ggttctaata tacatacttc actggctgta tcctacacaa aacacacaac 180
aagcactcga g 191

<210> 955
<211> 195

<212> DNA

<213> Homo sapiens

<400> 955

gaattcgcgg ccgcgtcgac atttcttatt agccaatatt tattaagcat ccgctgagaa 60
 ctttcctgtg cattgggctt acgggaggat ttttttctgt taagtgtgat tacactgcca 120
 ttcttgaact tgtttctcac ttagygagaa caatttgagg gtaatatgaa cagaatattt 180
 gtgagcatac tcgag 195

<210> 956

<211> 231

<212> DNA

<213> Homo sapiens

<400> 956

gaattcgcgg ccgcgtcgac ctacttacta aattgagttt ttaaaaagac ttagtggtgac 60
 atttgacagt gtctttcaaa cgaacttctc taacaagtct atagttattt tctgttttca 120
 acactattag aagtcttata aattatgcta attagcatgg cagtcattgt acacactctt 180
 aacattgcc aagaactgtt gatttcgttt gagaaaacc caggactcga g 231

<210> 957

<211> 214

<212> DNA

<213> Homo sapiens

<400> 957

gaattcgcgg ccgcgtcgac cgagatccac ggctgcatcc cctacgaacc ccatgaaatt 60
 cctgaggaat aaagcaataa ttcggcatag acctgctctt gttaaagtaa ttttaatttc 120
 gagcgtagcc ttcagcattg cctgatatg tgggatggca atctctata tgatatatcg 180
 actggcacag gctgaggaaa gacaacagct cgag 214

<210> 958

<211> 183

<212> DNA

<213> Homo sapiens

<400> 958

gaattcgcgg ccgcgtcgac taattacctg aagctttagt aataaagaac taattttttt 60
 tgtcagttac cacattttgt ttttagcttc aagaggttag tagtgcacaa tactgaggct 120
 aaaggttaag caagatttcc aggtttacag agatattaat taatctggat gaggcttctc 180
 gag 183

<210> 959

<211> 199

<212> DNA

<213> Homo sapiens

<400> 959

gaattcgcgg ccgcgtcgac atttgcgttg actgtggatt tctctctgcc tttggaacat 60
 ttgtgcaagg atgagagggg atagttttaga tctcttaact gcatatgctg taggttataa 120
 agccacagta atgtgtttcc tttgcagctg tgccttctat tcttctctcc agactagctc 180
 tgatagggaa gctctcgag 199

<210> 960

<211> 195

<212> DNA

<213> Homo sapiens

<400> 960

gaattcgcgg ccgcgtcgac cttttttaat actatgaaga aaccaaggca gaattacgac 60

ctctggttct tttctttttt ttctttttta gacaggtcgc gttctgtcgc cctagctgga 120
gtgcagcggg gtgatcacag cacactgcca cctccacctt tgaggctcaa gcagtcctcc 180
catctcaage tcgag 195

<210> 961

<211> 161

<212> DNA

<213> Homo sapiens

<400> 961

gaattcgcgg ccgcgtcgac ctcaaattta aaaaaaaaaa aaagaagaag aagaaaacta 60
gtgggaaaaa agtgagagga atactttttt gaaattggtg tcggaaggaa ctggagaaga 120
gaaaacaaca gtgccaaatg agaaaagaac agttcctcga g 161

<210> 962

<211> 252

<212> DNA

<213> Homo sapiens

<400> 962

gaattcgcgg ccgcgtcgac caaagagtct tgaattcttt tgttttccca gtaccaaatt 60
tactttagtt ttatctatga aatggtgata aactttcgtt gtaagtatca ttgatagca 120
ttgaagtatt taactttttt gttggagcca gagtctcagt ctagggttga gtatagtggc 180
gccaccggct ctatcttagc tcaactgcaac ctccatctcc caggttcaag cagttctcat 240
gccttactcg ag 252

<210> 963

<211> 153

<212> DNA

<213> Homo sapiens

<400> 963

gaattcgcgg ccgcgtcgac tgctttgtgg acacagattt tcaggagat ttaggggaga 60
gaaacttacg agtgaatgag atacttttatt ctaaacagtt tgaatgtcat tgtgattttt 120
ttgtcttttag ttgatgatgg tgaggtcctc gag 153

<210> 964

<211> 216

<212> DNA

<213> Homo sapiens

<400> 964

gaattcgcgg ccgcgtcgac gccaatteet ttttttttca gggccaattc ttaatacatt 60
ttaaggattt gtgaacagat gggctgcact gcatttctgt tgatcatgat gttctattct 120
agacaactaa gaatgtcaaa aagcttctta tcttatgaca actccagtc agtgatggcg 180
gtactttgga gcactgggtt agaaagaaaa ctcgag 216

<210> 965

<211> 241

<212> DNA

<213> Homo sapiens

<400> 965

gaattcgcgg ccgcgtcgac ccctaaacat gttaccaggt cttatccatt ccccgtaatt 60
ttgcaccacc cccaaacact acattcgctt tggctcacc tttatccctg agagacgtcg 120
aaggccctt ctgcctgatg gcacattcag ctccgtgaag aaggatgtc tgtgtttttg 180
tgtgtgtgtt gtgtttatgt gtgtgtgtct tttttttta agcctaagat tccagctcga 240
g 241

<210> 966

<211> 252
 <212> DNA
 <213> Homo sapiens

<400> 966
 gaattcgcg ccgcgtcgac ggaaaaggaa ttctccaaaa aggtgaccca gagcatttgt 60
 ttgcaccag ctttgccctgc ccaactgagt cctttgacca gggttgctg taaatcttcc 120
 agggagattt caacacttgt ttgtcttaaa tactttctgc tatcatctca ttgccatcca 180
 ctcttcttcc aggggtctgga tatatttttg aaagggattt agatgaaact ctattttgct 240
 gtggtactcg ag 252

<210> 967
 <211> 140
 <212> DNA
 <213> Homo sapiens

<400> 967
 gaattcgcg ccgcgtcgac atagctttgt agagtgaat cgactgttaa agtgggtgtcc 60
 tgccccagat tgccaccatg ttgttaaagt ccaatatact gatgctaaac ctgttcctg 120
 caaatgtggg caatctcgag 140

<210> 968
 <211> 180
 <212> DNA
 <213> Homo sapiens

<400> 968
 gaattcgcg ccgcgtcgac attaattatt gctatgtctt ttacttget ttattttcta 60
 tcttcatgga ttaatttttt ccaaatgatt ccagaatctg ccacacacct accattcat 120
 ttttccacc aaatgctcag ttgtgtcagg ccactgtctc attccccgt caccctcgag 180

<210> 969
 <211> 475
 <212> DNA
 <213> Homo sapiens

<400> 969
 gaattcgcg ccgcgtcgac atctactat gttgacagac atgatgaaag ggaatgtaac 60
 aaatgtctc cctatgattc ttattggtgg atggatcaac atgacattct caggctttgt 120
 cacaaccaag gtccatttc cactgacct ccgttttaag cctatgttac agcaaggaat 180
 cgagctactc acattagatg cactctgggt gaggctctgca tcttggtact tctcaatgt 240
 atttgggctt cggagcattt actctctgat tctgggcca gataatgcc ctgaccaate 300
 acgaatgatg caggagcaga tgacgggagc agccatggcc atgcccgag acacaaacaa 360
 agctttcaag acagagtggg aagctttgga gctgacggat caccagtggg cactagatga 420
 tgtcgagaa gagctcatg ccaaagacct ccacttcgaa ggcattgtcc togag 475

<210> 970
 <211> 133
 <212> DNA
 <213> Homo sapiens

<400> 970
 gaattcgcg ccgcgtcgac ctccaactct tctatgcat tccccctct tctctact 60
 atacaggtgt cctgcctg ccagccact gggcaacttc cccatctcc ctatactcc 120
 aaacactctc gag 133

<210> 971
 <211> 132
 <212> DNA
 <213> Homo sapiens

<400> 971
 gaattcgcg cgcgctcgac ctgatttttc ctctacata gttgtatgtt gttatttttag 60
 cttgcttttt tatgacagtt tcaggcacat tttatatgtt aattaagcat gcatatagcc 120
 agctttctcg ag 132

<210> 972
 <211> 188
 <212> DNA
 <213> Homo sapiens

<400> 972
 gaattcgcg cgcgctcgac tctgacaatc agtttatgtg aatacatgtt ttatggatta 60
 aaatattaga ttattattat atcctctaaa tgaattggct tgttatcggt atgaaatggc 120
 cccctttatc ctttagtaatt tttttttgtt ctaaaatgtc ctttggatt gatgcagccg 180
 tgctcgag 188

<210> 973
 <211> 156
 <212> DNA
 <213> Homo sapiens

<400> 973
 gaattcgcg cgcgctcgac gtgagatgtg agattgaaa agtgtaagat gtcagttaag 60
 attacaataa aaactggaag tatattcttt tttcttttat cgttattata tttatatttt 120
 ttcaagacag ggtcttgctc tgtcccaga ctcgag 156

<210> 974
 <211> 189
 <212> DNA
 <213> Homo sapiens

<400> 974
 gaattcgcg cgcgctcgac atctacctca gttaaacagt tgggtgctat tactaagtct 60
 gtcaaattaa attggaaaaa gtaaccaaac agtgagatac aactccacat gaaacttgaa 120
 attgtaattt cggtttattt aatgatattt ttattttatt gtgcctttta tgttgaaccc 180
 cttctcgag 189

<210> 975
 <211> 175
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (56)

<220>
 <221> unsure
 <222> (82)

<400> 975
 gaattcgcg cgcgctcgac ttattgtatg atttattttg gagttatatt ctgatnacag 60
 tgctccctct cccaatagc antgattttt tccccctctt aaaatgtata atctggctct 120
 aggttggatt ctttggata tttctctctt ctggatgcca tgcagcgac togag 175

<210> 976
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 976

gaattcgcgg ccgcgtcgac aaatttttagt tgtcccgsga gttcttttgt atctgaaacc 60
 tcagttgtca agcttggaaa tctgtacttt taaaatatcc tcaagcgatt ctgattacac 120
 atcaggtttg gaagcacttg gcataaagaa cttcccccac ccaattcaaa gaaatagtat 180
 ttaagccctc ataatgtgca gtgtggttaa actgtgtctc gag 223

<210> 977

<211> 173

<212> DNA

<213> Homo sapiens

<400> 977

gaattcgcgg ccgcgtcgac gaaatgctct gctctcttct cttttccttg ctgtccctgg 60
 ggctggagga gcaaggccct ccccgaggat gggcttcagc ctccctagac tctgtctctc 120
 ttccaagggc taggcctggg ggaccagaag caagagtccc aagcgtctc gag 173

<210> 978

<211> 148

<212> DNA

<213> Homo sapiens

<400> 978

gaattcgcgg ccgcgtcgac attggtacca ggcacttaca aagctaaatt ttccgatgtt 60
 cttttcacca gcatatctct ttctcagttt attcattgat gcagaaagca ggcagctggt 120
 caccgggtgt gctgacggcc aactcgag 148

<210> 979

<211> 224

<212> DNA

<213> Homo sapiens

<400> 979

gaattcgcgg ccgcgtcgac atttattaat ctaggaaagt taaatagtcc cttgaaacaa 60
 aaatttttag ctgaatttat tgaattata ttgtttaaatt gattacaatt tgaaaatact 120
 ccgtgtttga tgttaggctg aacatgaaaa ctttttattt gaatcagatt tttttttttt 180
 taagttttgt ccatcaacta aaggcacaaa cagacgacct cgag 224

<210> 980

<211> 135

<212> DNA

<213> Homo sapiens

<400> 980

gaattcgcgg ccgcgtcgac cgactttatt aaatctatga aaaatattta tattattgga 60
 ttattatggg cttgctcgac atggactatg gccgatacag tctgaactga taaagcaaca 120
 acggtacaac tcgag 135

<210> 981

<211> 234

<212> DNA

<213> Homo sapiens

<400> 981

gaattcgcgg ccgcgtcgac ttctagacct gcttctttta gccatactat attcatgcta 60
 ttaagggtaa tttgtgagat gcgagtaaat ttctttttct ctctctgttc atcacttgct 120
 ctcttttctc ctatactgtc caaacaggc actgctttcg atctccgttg ttcatttaat 180
 ctcttttctg atttctcatt tccaaattct gctcacgacc cccacactct cgag 234

<210> 982

<211> 189

<212> DNA

<213> Homo sapiens

<400> 982

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gaattcgcg cgcgctcgac ctctgacaaa tagctcagga tgagtgaag aaaatgggct 60
ttgatgtctc tcacaactgc agtgggaatt ttaggagggg caatttgcca agaagatggg 120
gcaggatttg aaaggatttg ggaggatggg gagtgggtgt cagagaaagt tgtagggaagc 180
gacctcgag                                     189

```

<210> 983

<211> 211

<212> DNA

<213> Homo sapiens

<400> 983

```

gaattcgcg cgcgctcgac ttgaattcta gacctgcctc gaaaagctgg agagctgaca 60
aggaaggttt cgagcgtttt gctggcaaaag ggattttctta caacctccag gcatgcgtct 120
ttctgccttg ctggccttgg catccaaggc cactctgccc cccattacc gctatgggat 180
gagcccccca ggctctgatg gcagactcga g                                     211

```

<210> 984

<211> 185

<212> DNA

<213> Homo sapiens

<400> 984

```

gaattcgcg cgcgctcgac cgcattctgt gagcaatgtt gacaatctca tcaaaagtga 60
tattcccact gtgtttaatg tttttctgtt tctttctgtc tcttgggtgt tcttggagg 120
ctttgatgat cagggcgagag gcagaaggca ccaccaagag acagaaagaa acagaaaaac 180
tcgag                                     185

```

<210> 985

<211> 291

<212> DNA

<213> Homo sapiens

<400> 985

```

gaattcgcg cgcgctcgac agaacctgga aaaattaacc acatgagata cgatacacta 60
cccagatgt tgacgttggg aaatatccgt gctggcaaca aaatgattgt gatggaaacg 120
tgtcaggct tgggtgctgg tgcaatgatg gaacgaatgg gaggttttgg ctccattatt 180
cagctatacc ctggaggagg acctgttcgg gcagcaacag catgttttgg atttcccaaa 240
tcttttctca gtggtcttta cgaattccct ctctacaaag tggcactcga g 291

```

<210> 986

<211> 152

<212> DNA

<213> Homo sapiens

<400> 986

```

gaattcgcg cgcgctcgac gaccacccag gtaatccaca agattcttaa ttatatctgc 60
aaagattcct ttttcaaatg agaccatctt tacagattct ggtgattagg atatggctat 120
atctttttat cttttgttgg ggggaatctcg ag                                     152

```

<210> 987

<211> 235

<212> DNA

<213> Homo sapiens

<400> 987

```

gaattcgcg cgcgctcgac cattataggg tgactgtaag actcaaatag agccactgcg 60
cccagcctag gaagccctaa gtttttaaaa cttttttaaag ttttaattaa gcaaagagct 120

```

tcacaaaaac atttaaattc ggcaaaataag tgctattaca gagatgcata gatttggttt 180
tctttttctt actttccctc tcttctctct tcttccctt tcttccccc tegag 235

<210> 988

<211> 171

<212> DNA

<213> Homo sapiens

<400> 988

gaattcgagg ccgcgtcgac ttctattaat cttaattccc ccattttgtt tctgtgatct 60
gctatgacat tacaaaaaaa attggtttat cttcttctt tctgtttcca gtgcctttat 120
tgcatggaac agtatccctt gcacccacgc ttcaccccg ttagtctcga g 171

<210> 989

<211> 174

<212> DNA

<213> Homo sapiens

<400> 989

gaattcgagg ccgcgtcgac ctcaaaattt ttgttttttg ggctccgttt tgttgagggg 60
ggctgttttg agaccaggtt gctcatggtt ttaattctga cacatttaag tgggtgtttg 120
ttttgtttgt ttctgagggg tgggggtgtt cctctgtgcc caagctatct cgag 174

<210> 990

<211> 207

<212> DNA

<213> Homo sapiens

<400> 990

gaattcgagg ccgcgtcgac gcctgtccct cctccgtaat agctcagcac ctcacacatg 60
cttccgactc agcctgtgct ttgcaactt atttgettac ctattttctt tccccactcc 120
tccatgactt tgtggaaggc aaggacttta tctcaggatt tctctatcac cagacctagc 180
ttggggcagc aaagcaggct cctcgag 207

<210> 991

<211> 169

<212> DNA

<213> Homo sapiens

<400> 991

gaattcgagg ccgcgtcgac attttgggtt ttgtttttca ttcattctca agtattttct 60
aatttccctt gtgattttct ctttgacccc ttgattgttt agaaatctgt taattttcac 120
acatttgtaa atgttccaat tttttttt ttattgccag ctctcgag 169

<210> 992

<211> 181

<212> DNA

<213> Homo sapiens

<400> 992

gaattcgagg ccgcgtcgac cctaaaccgt cgactctagt cagaagttat ctgagcaaag 60
agaaaaataa gcctggcgta gacagtccca tagaaaatag aatccatagc cactgggctg 120
cccttcaatt tcccaattca ttccactaag tctcatgatg caaatctgtc actttctcga 180
g 181

<210> 993

<211> 355

<212> DNA

<213> Homo sapiens

<400> 993

gaattcgcgg ccgcgtcgac gtggctctgt aatgctaaca agaagtctga aaacctgcc 60
 aagcgctgt actgtttttt tgtttctctt tttttctgtt ctctccggg gatcccgagc 120
 tgtcctcgag ctgtaccctg agaactcaga gcagttggag ctgatcaciaa ccagggccac 180
 aaaggcaggc ttctccgggtg gcattggtgt agactaccct aacagtgcc aagcaaagaa 240
 attctacctc tgtttgtttt ctgggccttc gacctttata ccagaggggc tgagtgaaza 300
 tcaggatgaa gttgaacca gggagtctgt gttcaccaat gagagagtc tctgag 355

<210> 994

<211> 249

<212> DNA

<213> Homo sapiens

<400> 994

gaattcgcgg ccgcgtcgac ctggaatggc tgggtaaaat tatttcattt ctgaaaaatc 60
 aagaacaccc ttcatatacc attcttcgcc acttccctcc tccccaaacc ctaaaaataat 120
 acaactcagg ccggggcaggc tacaatttaa ttttaacacat cttttgataa tctcaccctt 180
 ggtgttgga aagacgggaa aatccaaaag tgtotatttt gtgcccaaat gctcaagtta 240
 atactcgag 249

<210> 995

<211> 346

<212> DNA

<213> Homo sapiens

<400> 995

gaattcgcgg ccgcgtcgac ettttctgct ctgttttgtt ttccttgcct gttgcgtgca 60
 aggggaagtgc ttgtaaagt ctgtgtctacg agatttttaa aataaaaaatc gcttcgcagc 120
 aggttctcac aaaataactg gtgctagctc aagaaatcat catctgacca tcagaaatct 180
 tgactaaagg tgttgcatgg atttgggggt ctttcgggtt ttggtttttg gtctggcttt 240
 tagcagggcc aatgtttccc acaccccggc ttcattggta ctgctttgcc ttctcaccaa 300
 ggtgacgatg gtgtgcgtgg aaagagatga taccaccacc ctctgag 346

<210> 996

<211> 147

<212> DNA

<213> Homo sapiens

<400> 996

gaattcgcgg ccgcgtcgac gctttgatgt atagattaca ggtttcatca accttccaaa 60
 gctttcagcc attgtttctt caagtatttt gttttcctac tcccttctct ctttctctt 120
 ctaatgctca ttaccctgat gctcgag 147

<210> 997

<211> 329

<212> DNA

<213> Homo sapiens

<400> 997

gaattcgcgg ccgcgtcgac aaattattaa ggggttaagta aggagtttta aataccaata 60
 aaatcttatt tataacacca aacctcagaa gtccttctc ttggcaatag ttttattgta 120
 ttggtttaat ctgataattt atcttctgta ttatagtaag ctgaaaccaa aattgagaca 180
 tgattgtttt atgtttgttg ctattatttt tgaatttttt tttttttttt ttaagacaag 240
 gtcttgcctat gttgccaac tggcctcaaa ctcttgagct caaagtgate ctccacatg 300
 ctctctccac atcacatcac agtctcgag 329

<210> 998

<211> 293

<212> DNA

<213> Homo sapiens

<400> 998

gaattcgcgg ccgcgtcgac atattttctc ataaatactt gagegggttt tgcctggcag 60
 gcttccaaat ttgccaaaat taagcggtca gtattttcaa cacatacgtt ttttactggg 120
 ttatactgaa ctatctgatg agaattcctg tgttcccaaa gcaactgatg tttacaggto 180
 ttgtgtttct cctcctcctt tctaaggatg aggggaatca caacagactt tctctagaaa 240
 acactaatga tggacaactt tttggtgtca tcaatgagtt ggctactctc gag 293

<210> 999

<211> 158

<212> DNA

<213> Homo sapiens

<400> 999

gaattcgcgg ccgcgtcgac cttattcgct gaactcaggg atttcactt gcattgtcca 60
 cagttgagtc aggaccata atttcttctt gctttcccat gctattcctt tcttattga 120
 caaatgccat catcttttct ctcactgcgg cactcgag 158

<210> 1000

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1000

gaattcgcgg ccgcgtcgac tttttaaatg aggttattta aatgttaaag aaagttttag 60
 tggtcgcatt attgggggta ttttcaactg catttgcagg aggttttcaa attaaagtgg 120
 gtgcgagttt aattgaccca acagcactcg ag 152

<210> 1001

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1001

gtgactctca tctattaacc taagccagaa atcaaggagt cattttagat acttcotttc 60
 actccttacc atctggtcag ttcctaataa aatgatgggc attttcctaa tttttctact 120
 tgtctctaaa tttactgcat atgattocat tcccttgtat actgctagag tgaatagtca 180
 cctcacgaac ctcgag 196

<210> 1002

<211> 311

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (280)

<400> 1002

gaattcgcgg ccgcgtcgac aactttttca gcaactaaaa aagccacagg agttgaactg 60
 ctaggattct gactatgctg tgggtggctag tgctcctact cctacctaca ttaaaatctg 120
 ttttttggtc tcttgtaact agcctttacc ttcctaacac agaggatctg tcaactgtggc 180
 tctggcccaa acctgacctt caetctggaa cgagaacaga ggtttctacc cacaccgtcc 240
 cctcgaagcc ggggacagcc tcaccttgcg ggctctcgn tggagcagtg cctcaccaa 300
 ctgtcctcga g 311

<210> 1003

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1003

gaattcgcgg ccgcgctcgac gaggaatggc agtattctct tatgaaatag taagtttgtt 60
 atcatttgca gttttctgtt tatggctctgt cagagcagtg acttcagagg ggcaacctgg 120
 acagttgact gctcccatca ccaaaaccaa actacacaca cacacacgtt cccaaactgc 180
 accaaggcac cccaaagcac cactcgag 208

<210> 1004

<211> 223

<212> DNA

<213> Homo sapiens

<400> 1004

gaattcgcgg ccgcgctcgac agtttttggg ctgtgaattt aatgttttag gaagttccca 60
 ttttaagattc ttttaaatgg tttcttctgt tgtgctttta ttctttata ttaaaatctt 120
 tgattttatct aaaattactt ttgtgaaga gtggtatagt gagaatagct ttttagagaa 180
 aaccaaaca aatgggttga atatttgtcc caacactctc gag 223

<210> 1005

<211> 166

<212> DNA

<213> Homo sapiens

<400> 1005

gaattcgcgg ccgcgctcgac tgggcattac tatgttagtt ggaataactg gactctttta 60
 cactcaacta attggcatca tcacagatac aacatctatt gaaaagatgt caaactgttg 120
 tgaagatata tcgaggcccc gaaagccatg gcagcagcac ctcgag 166

<210> 1006

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1006

gaattcgcgg ccgcgctcgac gaacaacgtg ggctttcatg atgtatgtac ctttctcttt 60
 cttttgttgc atgtggggga cagtattgct tcaactaatg tttattactt taaaacacga 120
 aaggtatgag gaagttaaacc aaaacagtcc acagtcttca aacaggaccc tcgag 175

<210> 1007

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1007

gaattcgcgg ccgcgctcgac gggaaaacaa agaaacaaac tataaaagaa agcaaagaaa 60
 atctttgtga tttgggggtca gagataggac tccaaaaaca taagaaaaaa actggtaaac 120
 tgaataaatt gataaactgg acttcacaaa aattaaatac atttactatg aaaaaaacag 180
 tgctactcga g 191

<210> 1008

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1008

gaattcgcgg ccgcgctcgac ccaggatttc aactatactc atccacagac ttttccatt 60
 gggtagaaat tgaaacagaa ctgacagaac caggatttga ataccagcct tttgactcca 120
 aatcagggac aagatgcagt tttgtatgtt aattattttt attggttttg atattgtggc 180
 cccactcgag 190

<210> 1009

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1009

gaattcgcgg ccgcgtcgac ttcaatctct agagggtttgg cagtttcttt ttatcaaatt 60
 cttcccttaa taagctgcag cctgtgaatc tcaaaataat ggaagtttta aaaacagaaa 120
 gaaaaagatt tttattttta tttttttatt tttatttttt taagacaggg tcttgcctcg 180
 ttgccaggga tggaaatgcag tggcacaatc gcggctcgct gcggcctcaa tctctggggc 240
 tcgag 245

<210> 1010

<211> 183

<212> DNA

<213> Homo sapiens

<400> 1010

gaattcgcgg ccgcgtcgac tgaagtctcg aaaaaaattt taggagattc ctgctttcta 60
 gggtgctgaa gaaagactac ttaaaatcac tatttaatat tacagtaaat aggagatacc 120
 tgtattttga actttgcata aaattgatgt ttctttatgg ttaaatttag attaatactc 180
 gag 183

<210> 1011

<211> 141

<212> DNA

<213> Homo sapiens

<400> 1011

gaattcgcgg ccgcgtcgac ccagactctc atatccatgg ctttcttgtt ttataaaata 60
 gtatacttac tgtgccttaa acagaacttg gatccctctc atttccacta cttccctcct 120
 tgtctctgta aggacctega g 141

<210> 1012

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1012

gaattcgcgg ccgcgtcgac cttgtatgtg tcatttgagt ggtttccaga ttggagcgag 60
 gttattctga tctaaatgaa cagcattttt ttccttagcc tctgtttggc actctgggta 120
 tctctcctat gggcaaagcc attagaaatg catccactcg ag 162

<210> 1013

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1013

gaattcgcgg ccgcgtcgac atctttttcc tgtggtctgt tcaaaaactt tgtctttgag 60
 caatattact attatgtgtc tagatatagt ttcttttttt atccagcttg ggattcttag 120
 aaattcttca ttttgtagtt tgatgtcttt tgaaagtttt ggaaaattcc cagtcagaat 180
 atcctcagat catgtttcta tccccaatc tctcgag 217

<210> 1014

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1014

gaattcgcgg ccgcgtcgac actgatatac gatagacagc acatatataa aacgtaaaat 60

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ttgataagtt ttggcatatg tatgcacatg caaaaccatc accataatca agaccgataa 120
cataccatc atccataaaa gtctcttcct gtccctttgt attcccttat taagaaacta 180
ctaaatgttt aagtatttgt gctattttcc attcctatca gcagtacatg ataattctcc 240
ttgtccata tcgtctgagc tcgag                                     265

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<210> 1015
<211> 127
<212> DNA
<213> Homo sapiens

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<400> 1015
gaattcgcgg ccgcgtcgac caaggacttt cccattgca agtcttcagc agacgagcca 60
cacagttcca agtacatctt aagaagcaca ctctagatgc agaataaga ttcactattt 120
gctcgag                                     127

```

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<210> 1016
<211> 231
<212> DNA
<213> Homo sapiens

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<400> 1016
gaattcgcgg ccgcgtcgac gcttggctag ttttaagggt ttttaacagg cattgagaca 60
tctataatgg tcttgcgtgt tttggatctg actcaaactc agccctgcct tctatttttc 120
tttctttttt tttttttttt gaggcagctc tactgtatgg ccgaggctgg agtgagctgg 180
catgatcttg actcaatgca acctgtcttt cgggttcaag tgattctcga g          231

```

```

<210> 1017
<211> 209
<212> DNA
<213> Homo sapiens

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<400> 1017
gaattcgcgg ccgcgtcgac agcttaatcc tttctagctt ctgatttaaa gtgagagaca 60
tgagactctt cctttcactt gtatacttag gggccattgt cgggttattc attagcttaa 120
tttcaatatt gttgtgtctc aggagtagga atatccaaag agaggagaaa agacttgggg 180
agcagctggg cagtgaaca actctcgag                                     209

```

```

<210> 1018
<211> 205
<212> DNA
<213> Homo sapiens

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<400> 1018
gaattcgcgg ccgcgtcgac ataacccttt aatggtccc tatgcccag gattaagtec 60
aaacaccatg gtgtggcatg tgagaaagtc ttcctttgtc tggcttctgc agctcttcag 120
cttcactctc tgccactctg tcactctctg gtcccagtg catgtcccat gacacagtg 180
tcagtcata cccccaattc tcgag                                     205

```

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<210> 1019
<211> 218
<212> DNA
<213> Homo sapiens

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```

<400> 1019
gaattcgcgg ccgcgtcgac cttcatcccc accttccttc tcactctctc tacagtttga 60
tgctgctggg caatttcate cacttcttag gcttcagttc tcaaccatct actgatgatg 120
actcccaaat gtttatccct gccctgacta cctacctgt atgtctttct gaataaacy 180
ctottaatcc caactgttta ttatactcat ctctcgag                                     218

```

```

<210> 1020

```


<211> 259
 <212> DNA
 <213> Homo sapiens

<400> 1020
 gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc cattcaaccc 60
 ccctcatcac actctcacac tttctgagct gagatccaca gtaaggaata cactgtttca 120
 tcttcgccct aggcacatac tctcatccgc agctgaaatg cagtttcaga atgtgaatcc 180
 ttatttcacg ttctgtgtgg tgatgttttc tgttttctct cttgcctcct cctcagcatt 240
 ggctacacac ccaactcgag 259

<210> 1021
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 1021
 gaattcgcgg ccgcgtcgac gcccatagga gttgaaaaat cctgctgctc tcagctatat 60
 tttttctccc attatttata aatgtttgct tttaaactga tttatttttc cattctcccc 120
 tggagttggg ccaggggaga gtgggggtggg aagacagatc tcgag 165

<210> 1022
 <211> 195
 <212> DNA
 <213> Homo sapiens

<400> 1022
 gaattcgcgg ccgcgtcgac ttttaagttc tagagatcgg gtctcgttat gttgcctagg 60
 ttgattttga actcctgggt ctgcctcagt cttccaaaat gttgggatta caggcatgag 120
 ccaccttgcc cttcccgaaa ctgccatact gttttccgta atagctgcat catcttcat 180
 gccctgtgc tcgag 195

<210> 1023
 <211> 143
 <212> DNA
 <213> Homo sapiens

<400> 1023
 gaattcgcgg ccgcgtcgac aatcattcca acaatatctc tctgattgtc tctaaccgaac 60
 tactttttct gatttttgat cagtgtatct tgactataat agaaaagaaa gtttaaatgt 120
 tatggaaggt gctggggctc gag 143

<210> 1024
 <211> 166
 <212> DNA
 <213> Homo sapiens

<400> 1024
 gaattcgcgg ccgcgtcgac caggaaagca ttgaattaaa ttatacagta ccattttctc 60
 aggtattgag ctaaagagaa tggagctaaa attgccctgc tgtcttgta ttacctatt 120
 tctaattctg tcatttttct tccaaaaatc tcacgcatac ctcgag 166

<210> 1025
 <211> 164
 <212> DNA
 <213> Homo sapiens

<400> 1025
 gaattcgcgg ccgcgtcgac attggaaata tcatccagac agaaagtcag caaacatctt 60
 acttaattctg cagtacagac caaatggacc taatagacat ttacagaaca ttttatccaa 120

tggctgcaga gtacacattc ttcagctcat ggatcattct cgag 164

<210> 1026
<211> 139
<212> DNA
<213> Homo sapiens

<400> 1026
gaattcgcgg ccgcgtcgac tgacattatt atcaattaac attttacttc cttctagctc 60
tctacatttt cattttctca tctcataaat ctcattcctt atgatttttt ggtgggggatg 120
tgttacttac ggactcgag 139

<210> 1027
<211> 174
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (42)

<220>
<221> unsure
<222> (56)..(57)

<220>
<221> unsure
<222> (61)

<220>
<221> unsure
<222> (64)

<400> 1027
gaattcgcgg ccgcgtcgac caaataccct ggttggcttg tnacaagaaa gaatttnggc 60
ntanctcaga tacaaaagtg gaaaaagaaa cggctataat ccatggggaa gactttctat 120
ttcttagtct gtctctgtc ccaaatagct cagctctctt caccctaaact cgag 174

<210> 1028
<211> 169
<212> DNA
<213> Homo sapiens

<400> 1028
gaattcgcgg ccgcgtcgac gtatatgtta attgagacaa gcaggttgta aaatgaacctt 60
ctcttcccat tcttctcatg ttgtctctaa aaaagatata cttcttttct tcttttttct 120
tttttctttt tttagagatg acagactctc tctgccaccg agactcgag 169

<210> 1029
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1029
gaattcgcgg ccgcgtcgac gagtcttttag agttttcttag gtgaacgata atatcatcca 60
tcagcaaaaca gtgagtttga cttctctctt aatgatttgg atgcccttta tttctttctc 120
ttgtctgatt gctctggcta ggacttcag tactatgttg aagaggagtg gtgacagtgg 180
gcatecttgt ctagtccag ttctcagagg gaatgcttcc aacttttccc cattcagtat 240
tttgttggct gcaggccatc tcgag 265

<210> 1030
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 1030
 gaattcgcgg ccgcgtcgac ctgagtcgtc taaaattctg cattacagtt gcgattattt 60
 tccttttgata ttacaatttt gatttatgtt ttttataaca cttgtatttt tccttattac 120
 cacatcaata tatattcatt gtggaaaact atgtaaaaat gcagaaaaga atacattaaa 180
 aaataaaaaac tcctgcattt tactccttac tgatactctc gag 223

<210> 1031
 <211> 135
 <212> DNA
 <213> Homo sapiens

<400> 1031
 gaattcgcgg ccgcgtcgaca aagcttgtga gtcacacaaa caaggatttc agtgtagatt 60
 ttgtctttct tgaacttaaa gaaacaaatg acaaagtttg aatggaaaag cctgctgttg 120
 ttccccacgc tcgag 135

<210> 1032
 <211> 186
 <212> DNA
 <213> Homo sapiens

<400> 1032
 gaattcgcgg ccgcgtcgac cccggttttt cttggagccc aagagttttc tgagtgtgca 60
 gagaaccott ctatcatgaa gactttattt agagtcgggc tagggttgtt actgccttta 120
 ccaggcttcg tattcccttc ctctgtgtct ggctacactt ctacagtttc tggccactta 180
 ctcgag 186

<210> 1033
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 1033
 gaattcgcgg ccgcgtcgac gaaaaaaaaa gtgccttttg ctgctttaaa gaattggggg 60
 atatggtatg aagcagccat gtacttgtat tttcctgggc tttcctgggc actcttctct 120
 cttggcagat gttttcttaa agtgaacaca ccagaagcgc tcgag 165

<210> 1034
 <211> 259
 <212> DNA
 <213> Homo sapiens

<400> 1034
 gaattcgcgg ccgcgtcgac ctttgatcca tggaaacatt ttataaaata atttccaaaa 60
 taatttcctg gaaatctgga attgtagtct gtagcaaat gggattattt attaatattaa 120
 ttttaatttaa tttatgagat cagagtcttg gtatgttgcg ttggctgggc tcgaactcct 180
 aggcttgagt gatccttctg cctcagcctc tctagtggct ggaactgtaa gtgcacacca 240
 ccatggcaca aatctcgag 259

<210> 1035
 <211> 205
 <212> DNA
 <213> Homo sapiens

<400> 1035

gaattcgcg cgcgctcgac attatttget gtccctttga attcatttgt ctttttcaga 60
 ttgtggggca ttgcctggt aatactaaca ataatacaata atatcagtca gggataaaga 120
 cacagataaa ttgcatggaa aaaggatggt ggggggatcc atttctggct gtgtatttcg 180
 ctgccttggt gtccctatcc tcgag 205

<210> 1036
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 1036
 gaattcgcg cgcgctcgac ctgtttgtgg tgagggtgaa ttatgtgtgt ttttcctagc 60
 ttagtggtg cgttctttct ttttgtttct gagaatgctg tgttgagggg gtttttggag 120
 aaaacggtgg ggttgggagg ttgtagtact tcaaacaaag gtgaactcga g 171

<210> 1037
 <211> 251
 <212> DNA
 <213> Homo sapiens

<400> 1037
 gaattcgcg cgcgctcgac ccgttttccc acttcaacag ttacttcagg tttaaagtc 60
 tttttatctc tgtaacctgg tgacataaag ccaggaaacat tttcccacaa tccaccttag 120
 cataaaaacat aacaatttca ttcctcagtt gttattgtgt agaaccaatg aacatgttgg 180
 tcatttgtct gtatttagtc tttatttcta ttgctatatt tgagcattcc aagattgcag 240
 agggctctcga g 251

<210> 1038
 <211> 159
 <212> DNA
 <213> Homo sapiens

<400> 1038
 gaattcgcg cgcgctcgac cccatatatc acaagcaata tgggaagaat aaaaaagta 60
 aacctattat tattatattt gagatattgt ctctctcacc caggctggaa tgcagtgggtg 120
 caatcacagc tcaatgcagc ctcaatctcc aagctcgag 159

<210> 1039
 <211> 188
 <212> DNA
 <213> Homo sapiens

<400> 1039
 gaattcgcg cgcgctcgac cttaaatttt tgcattcatta tttgcatatc tttgagacaa 60
 caaaaatttg ccttttttta gttttttttt tgttgttggg atctaaaaga ttcttatatg 120
 taaatacaaa tattacagag aaagtgaata tgatagccaa aatgtggatt atgaggatac 180
 cactcgag 188

<210> 1040
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 1040
 gaattcgcg cgcgctcgac taaataaata aattaattaa ttaataaagt aataataata 60
 ataaagccca gcctggttgg tgtgctgtag gtgatatttc atgttcaagg ctctgtctct 120
 tcctgacctc cgaactgttg tcataaaatc attcattcat acactaaacc atttgatatg 180
 tatttactga atccctact cctcgag 207

<210> 1041

<211> 177
 <212> DNA
 <213> Homo sapiens

<400> 1041
 gaattcgccg ccgcgtcgac acccctcacc cccaaccctt caaccttata ttaccttgaa 60
 attccaccga tgctatatac gggtttgttt gcaactttca agtgggtatt atttccgtta 120
 gctttggagg aatattcttg tgatcacgca atcaaccatc atgatagaaa cctcgag 177

<210> 1042
 <211> 172
 <212> DNA
 <213> Homo sapiens

<400> 1042
 gaattcgccg ccgcgtcgac ccactttttg gagagtagca aatctagctt ttttgtacag 60
 acctagaaat tatctaaaga tttcatcttt ttacctata tttcttagga atttaattgt 120
 tatatgttgt ctttttttcc tatgtctttt ggtcaagca acgtcgctcg ag 172

<210> 1043
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 1043
 gaattcgccg ccgcgtcgac cagtcaggcg ctgtggctca cgcctgtgat ccagcactt 60
 tgggaggccg aggtgggagc atcgccctgg gtcgggagtt tgagaccagc ctgaccgaca 120
 tggagaaacc catctctgct aaaaatgcaa aattggccgg gtgtgtgtggc atgtgcctgt 180
 ggtcccggtt actcgggagg ctgaggcggg aggatcgctt gaacctggg ggaggagggt 240
 gaggtgggca gatcgccctg ggtcgggagt ttgagaccag cctgaccgac atggagaaac 300
 ccactctctc taaaaatgca aaattggccg ggtgtgtgtg catgtgcctg tggccccggc 360
 tactagggag tgctcgag 378

<210> 1044
 <211> 437
 <212> DNA
 <213> Homo sapiens

<400> 1044
 gaattcgccg ccgcgtcgac cgttcgattg agttggggtg gaactctggc gtcttctcag 60
 gtgggttaaag gaaccagcgc ttacgaccgt agatcacttc tgagtaccgc ggtccatgcc 120
 agtggaaagg caccctcgag ccagctcctg cgattccaaa gctgtaagct ggagcgggtc 180
 ccagcaggcc aaatgggggt ggggagtagt gccgaaagag agaggccac tcggtgaagt 240
 tgttgcctcc gaagaagtac aggtgtcat tgcccaggga ggtggggtcc tgggggtgca 300
 gcagctgctc cacatactcc tgggaaggca agtccacttt gtggtaggag taggtgttgg 360
 cgggtgctcag ccggaccact ctgtcccaa acgaagccag caacctgtcg cgggagcaca 420
 gggcccgga cctcgag 437

<210> 1045
 <211> 420
 <212> DNA
 <213> Homo sapiens

<400> 1045
 gaattcgccg ccgcgtcgac ggggggattc ttggcgccat tgtgtgccgt gggcgtctcg 60
 tacaccgct agcccgaggc cagtcggcag taggggtcca tgcgggtcat gccgtaattc 120
 ttggccaaact ttgcctgtac caccgtgatg ttcagtgggc ccacggtgcc cactgcgctt 180
 ccgtactgca gctgctgggc cgcctgggag tccagctgga cctgcccgtg ctgctgtgtg 240
 ggcgtgatgc ggaggaaagtc ctgcgggagc tcaccgatgt acaccggccc gcgctgagtg 300
 ctgacgggtg tcgccatggt gctgcggcgg ccccggtggc tcgcccagcc gacagtgcag 360

cgccgggcca cctcctgcgc ccccgccgga gcctgcgacg gagacagttg tcacctcgag 420

<210> 1046

<211> 424

<212> DNA

<213> Homo sapiens

<400> 1046

gaattcgcgg ccgcgtcgac tgcgtctcta agtgggtatct taaggatgct gactgcgtgc 60
 cggcatagtc acagtgcgga cacttgtagg gtttctcacc tgaggaggat ggcgaggagg 120
 ggtgcgggct gtccctcctgg gcactcccggt tctgggagag gccgcctccg acccgcctct 180
 cctcgggtgac gtttagaggag ccggcggtgg tggagcggct caccgactgg gactcctggg 240
 cactgcccga gccacgcccgc tcatccaggc ccacgtgcag cccatcctcc tcgcccttgc 300
 ggtcccgcctt gtggacacgg gagtgcacga ccacctgggt gtaagtgcgg aacaccgggc 360
 cgcagtcggg gcactcgggt ggtttctcct tcatgttccc aggaccctgc aggttatact 420
 cgag 424

<210> 1047

<211> 477

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (251)

<400> 1047

gaattcgcgg ccgcgtcgac gggggaaaca agcctcccggt gtcttgcaat agccccacga 60
 ggagccccagg atggctgggg caggatggag cagcagagat gaagggagtg ggtgggttcc 120
 ctgctcacag gtgaggtgag ctatgctggg ctgggtgatg aaccagatgg gaggaggtgg 180
 tgagacaggg ggagagccag gtgccaggga tagctgctcc ctgttctggc accagcaatg 240
 agaaaataaa nacaccacag agtgtggcag caatcgctgg gggagggaca cacttggtgg 300
 tgcggggcagg tggggcagtg ggggttcaag tgttcagggt ggacacacac cacttttgag 360
 atgactacga aagacccaag ggtgggcgtt aaataggggg ctggatcat aggtctggag 420
 ctcagcagga cgcgccagga aggaatggg agatgataga atgggaattt tctcgag 477

<210> 1048

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1048

gaattcgcgg ccgcgtcgac catgaacca atccggagaa ggttccagcg ggtccccccac 60
 cctcccctcc tctcctact tctcctcttg acagcgagga caggaggggg acaaggggac 120
 acctgggcag accgcgggc tctccccca cccaccccc cccctccat catactccaa 180
 ccaaacctcg ag 192

<210> 1049

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1049

gaattcgcgg ccgcgtcgac gttttctctt tcgatataa tgtctctgtt tttctctgtt 60
 tctacctct tctctctcca ctgtttctt ctgttttat cttctctct cttctctct 120
 cttecggtgca tctccagtgc catggggggc cctgtgctgg gggcgccagg agagccacct 180
 ggagccacgc ctgtgtcccc ggttttgggg aggggtcggtg ggttggtgag tgcacgggtg 240
 gcgtgtctcc acgcgccccg ggcgcacgca cccccgggt ctcggatttg gctggcagta 300
 cctgccccg ccccgccggt cgcgcccc gccaccagcg atcgttggg agaggggttac 360
 ctcgag 366

<210> 1050
 <211> 535
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (104)

<400> 1050
 gaattcgcgg ccgcgtcgac atccccgaac cccgctttcc ggcccgcggc gaccgcccgc 60
 aactgttggt gctgccgcat tgctcccgcc gggtgtgagc tgancgcgga gcccggtggg 120
 gccggtgagt ttgagttcct gagatctaagt tggtagagaga catgatgttc taccggttgc 180
 tgtcgattgt tggagacaaa agagccagcc caggatggca gaactgggtcc tctgcaagaa 240
 acagcgcacg agctgccgag gcgcgttcca tggccctgcc caccagggca caggtggtcg 300
 tctgtggagg tggaaacacg ggcacttctg tggcccatca ccaatccaaa atgggggtgga 360
 aggatattgt ccttttggag cagggcagggc tggctgtgtg ctctaccagg ttctgtgctg 420
 gcactctgag cactgccagg cacttgacca ttgagcagaa gatggcagac tactcaaaaca 480
 aactctacca tcagtttagag caagaacagc ggatccgaac agggtaaacac tcgag 535

<210> 1051
 <211> 303
 <212> DNA
 <213> Homo sapiens

<400> 1051
 gaattcgcgg ccgcgtcgac cacagacact gtggtgaact tccttatccg cgtggcctgt 60
 caggttaaatg acaacaccaa cacagcgggg tccctgggg aggtgctctc tcgccggtgt 120
 gtgaaccttc tgaagactgc gttgcggcca gacatgtggc ccaagtccga actcaagctg 180
 cagtgggttcg acaagctgct gatgactgtg gacagccaa accaagtga ctatgggaat 240
 atctgcacgg gcctagaagt gctgagcttc ctgctaactg tcctccagtc cccaggcctc 300
 gag 303

<210> 1052
 <211> 533
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (286)

<400> 1052
 gaattcgcgg ccgcgtcgac tgatgaagaa gcacaaggct gccgtggctc aggcttcccg 60
 ggacctggct cagataaatg atctccaagc tcagctagaa gaagccaaca aagagaagca 120
 ggagctgcag gagaagctac aagccctcca gagccaggtg gagttcctgg agcagtcct 180
 ggtggacaag tccctgggtg gcaggcagga agctaagata cgggagctgg agacacgcct 240
 ggagtttgaa aggacgcca gtgaaacggc tggagagcct ggctanccgt ctcaaggaaa 300
 acatggagaa gctgactgag gagcgggatc agcgcattgc agccgagaac cgggagaagg 360
 aacagaacaa gcggctacag aggcagctcc gggacaccaa ggaggagatg ggcgagcttg 420
 ccaggaagga ggccgagggc agccgcaaga agcacgaact ggagatggat ctagnaagcc 480
 tggaggggtg taaccagagc ctgcaggctg acctaaagtt ggcattcctc gag 533

<210> 1053
 <211> 531
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure

<222> (511)

<400> 1053

```

gaattcgcg cgcgctcgac cgcggccgcg tgcactcccc aaggaaaatc ttttcagctt 60
ccagacagca accacaacta tgcaagccat ctcggtgttc aggggctacg cggagaggaa 120
gcgcccggaa cgggagaatg attccgcgtc tgtaatccag aggaacttcc gcaaacacct 180
gcgcattggtc ggcagccgga ggggtgaaggc ccagacgttc gctgagcggc gcgagcggag 240
cttcagccgg tcctggagcg accccacccc catgaaagcc gacacttccc acgactcccc 300
agacagcagt gacctgcaga gctcccactg cagcgtggac gaggccttcg aggacctgga 360
ctgggacact gagaaggggc tggaggctgt ggcctgcgac accgaaggct tcgtgccacc 420
aaaggatcatg ctcatttcct ccaagggtgcc caaggctgag tacatcccca ctatcatccg 480
ccgggatgac cctccatca tccccatcct nctacgacca tgaagctcga g 531

```

<210> 1054

<211> 454

<212> DNA

<213> Homo sapiens

<400> 1054

```

gaattcgcg cgcgctcgac ggcgcttgcc tgtaatccca gctcctcagg gggctgagac 60
aggagaatcg cttgaacctg ggagggtggag gctgcagtga gctgagatcg cggcactgca 120
ccccagcctg ggtacagag tgagacttgg tctcaaaaaa aaaaacaaaa acaaatatac 180
aaacaaaaaa caacaacaaa aaacaccttg ggtactatcc catcaaatga aggtactgtg 240
agttatctaa tcagttccct gttgaggggc attttgattg tttcatgtcc tttactctta 300
ggaacagtga tgcagtgaat atcctgggtg atatttaata gacgttctct gagttgacct 360
tgcctggatg gagatgcatg gataatagac gctctgtgtt tctgtgtgcc attatactcc 420
aaacacttgc agccctgtcg tcagtgcgct cgag 454

```

<210> 1055

<211> 435

<212> DNA

<213> Homo sapiens

<400> 1055

```

gaattcgcg cgcgctcgac cgcggccgc cgcggccgc tcccagggg tcccagcctg 60
gcgggtgaaa gggcactggc ggttccccgt gagccgatgt ctccatgcgc ggtcctggg 120
ggtcctccct tttgcgcagg cggaggaaacg ggtttggggg tcagggaagca gccccagcc 180
cgccctggga ggtgacatca ccagggttca ccttccacaa acacatttaa caacagacaa 240
aacgtgaacg aggagaaact ggagtgcg tttgaaccag ccacagtctc tacgtgtcat 300
ccaaggagcc cggcacagac cccgtgtcac ccccatgtca cccgcagacc ccgcgtcacc 360
catagatacg cacaccccg gtacacccca tgtcacccgc gtgtcaccca cagatacag 420
gcccccgtag tcgag 435

```

<210> 1056

<211> 540

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (20)

<220>

<221> unsure

<222> (134)..(135)

<400> 1056

```

gaattcgcg cgcgctcgan tgggctgggt ggcattgcgtc tgtaatctcg gctactcggg 60
aggctgagac aggagaattg cttgtacccg ggaggcagag gttgcagtga gtgagatcaa 120
gctgctgcac tccnncctgg gcgagagagc gagactttgc ctcaaaaaac aacaaaaaca 180

```


acaaacacta tggtttctgt cttggtaatt cctctctctca aatcacttgc tctggaggaa 240
 tcaagctatc atgttgagaa cagcctaatt cagaggcctt catagtggagg aactgaaacc 300
 tcctaccaat aaccatgtga tgatttctag gcaaatcctt caattcaaat caagctttca 360
 gatgactact atcttagcca gtaccttacc tgcaaaactca agaggggaccc taagccagaa 420
 tcaaaacaact atgectctga ttcctgaccc tcggaaactgt gaaataacat ttgttggttt 480
 aaatcgctaa gtttaagggt ttgttacgca ctgatagata atacaggacc actactcgag 540

<210> 1057

<211> 703

<212> DNA

<213> Homo sapiens

<400> 1057

gaattcgagg ccgctctgac agggaaacata tcttttttct agagcctctg tctgctgggt 60
 tactgtatc ttcccttgac agtagcaatg ctgatttggc ggctgggtact tttggctgat 120
 ccaggacctg taaacttcat ggttcggcct tttgttggtga ttgtgatgtt tgcctgggtct 180
 atagttggct ccacagcttt ccttgcctgat agccagcctc caaacccgag agccctagct 240
 gttttatcctg ttttctgtt ttactttgtc atcagttgga tgattctcac ctttactcct 300
 cagtaaatca ggaatgggaa attaaaaacc agtgaattga aagcacatct gaaagatgca 360
 attcaccatg gagctttgtc tctggccctt atttgtctaa ttttggagggt atttgataac 420
 tgagtagggt aggagattaa aaggggagcca tatagcactg tcacccctta tttgaggaac 480
 tgatgtttga aaggctgttc ttttctctct taatgtcatt tctttaaaaa tacatgtgca 540
 tactacacac agtatataat gcctccttaa ggcctatgat agtcaccgtg gtccatttgg 600
 gtgacaacca gtgacttggg aagcacatag atacatctta caagttgaat agagttgata 660
 actattttca gttttgagaa taccagttca ggcagagctc gag 703

<210> 1058

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1058

gaattcgagg ccgctctgac ccctgtctca aaacaaaaaa ccttccttta atcttacatc 60
 agatgtgtgg gtttttaaaa ttatttatgt gttttattta ttttatttta ttgagacgga 120
 gtcttgcctc gttgcctggg ctggagggca gtggcatgat ctgggtcac tgcaacctct 180
 gcctcccatg ttcgagcggg tctcctgcct cagcctccca agtagctggg attacaggtg 240
 ccgcccacca caccgaactc gag 263

<210> 1059

<211> 316

<212> DNA

<213> Homo sapiens

<400> 1059

gaattcgagg ccgctctgac ccagcatctc tcaacagtct cagctcgtc attcttaaga 60
 tgtcagctta aatgttatct cttcagaggg ccccatgttc tctcttgcaa tggcctgttc 120
 tattecatta ggggactttg ccataatagg catatttgtg taaaagttcc atgagagcag 180
 aggttttgtt tcttttatcc ctccatacac agcaactgga acaatacaat gcatagagta 240
 aacatgcaac agataacctg aaggaaatgt gtttcatgac ttcattcctt cctatacatt 300
 attgtcctcc ctcgag 316

<210> 1060

<211> 393

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (27) .. (29)

<400> 1060

```

gaattcgcgg cgcgctcgac ttgaatnna gacatgcctg ctcaccccc actgcactaa 60
cctaaataat ctctgattat tttctttttc tcttgctact accaaattct gttcttgagt 120
gaggaagcag cttgggttaa aaacaaaagc cctgatatgt atatatattt ttttccctga 180
agaataccat caggatgaag gctatgatta atacacataa ttgctacaaa tggcagctaa 240
ctgcagaaaa ccacctccca gctgttggag gaaggaaatt gctgacagcc actccccatt 300
gggtggttac caaaagagag gagctcacag gagcaggaga gaatacacat ctccatccca 360
cgtgacccat agagatgacc cattaggctc gag                                     393

```

<210> 1061

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1061

```

gaattcgcgg cgcgctcgac gctaaacgga ctgtttttat tgtagtaaaa gagctttgta 60
aattaaccaa ttaattttta agccttaaat aagcttttct gtgcatttga gatctagaag 120
atacagcttt attaatctga tctaaatttc tgaagggggc ttgtatttct gtaatcagt 180
atatcagtag tcaactgttg gcaaagggca ttttttaaaa gaaatgcaca tagcaggctt 240
tctcgag                                     247

```

<210> 1062

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1062

```

gaattcgcgg cgcgctcgac aaaatagccc tggaaagtga gccttcagct cctctaccca 60
cagctgacta aaaacattgg caagtttgtc acctaggctg ttgtcaccgg aatataaatg 120
agaccatttt ctggccagaa aacttcagct atcacagtct acattgtgat gagttgcttg 180
gctgtttttc caagcaaaag aagggtcatg gtctcatgta tttccccca acacctcgag 240

```

<210> 1063

<211> 429

<212> DNA

<213> Homo sapiens

<400> 1063

```

gaattcgcgg cgcgctcgac gtgggagcgg aggtagggga gctcagaggc aggaagcatt 60
ttcggcaaac cactgcagag taggcatgtc atccctccca ccagcactgg gggagcccaa 120
tgcccaccac ggacaagggg tgccagacac ttgaactagc agccaaggaa gtccctacca 180
tctcatgatg aggagcataa aggtggtgtg atgtgcaact gcctagaggc agataaataa 240
atgtgaaggc aaagtgggcc aaggaagcaa gaggtggaaa agaccaacaa aattcaacta 300
acttccctcc ccagtccaca actatgctaa ccccttctgc cactggggcca actgcagaga 360
taaaaatgcc agtgactcac tccaggttgg gctcttgagg ctgccacaag cctgatactc 420
agcctcgag                                     429

```

<210> 1064

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1064

```

gaattcgcgg cgcgctcgac gaatgggatg cataccatag acgaacgagg cggagactat 60
tgccgggaatc ttactgttca ggagctgttc ctagaactaa ctcccttact gtcattgatg 120
tgcaattccac tctgtgcttt tctgtacaac cattcaagtt ttaatttccc aggtgaacca 180
tctttatctg ccattaccac aagcctcgag                                     210

```

<210> 1065

<211> 262

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (138)

<400> 1065

gaagaaaaatg aagcacctgt ggttcctcct cctgctgggtg gcggctccct tacgggtcct 60
gtcccagggtg cagctgtatg agtcggggccc agggctgatg aagccctccg agaccctgtc 120
cctcacctgc ggtgtctntg gtggctccct cagtgggtgct gccgacttct ggggctgggt 180
ccgccaggcc cccgggaagg ggcttgagtg gattggcaat atgcaccatc gtggaaatgc 240
ccattacaat ccgtccctcg ag 262

<210> 1066
<211> 262
<212> DNA
<213> Homo sapiens

<400> 1066

gaattcgcg cgcgctcgac ggaccggcgg cgtggtgttg gcgttctaga ccttgaacga 60
cggcggttga ctggtggcgt tctggatctg gatcgcttc tgctcactgg ggatgctctt 120
gaccgggatc ttcgtcgagt cactgaagtc ctggacctg accgtctccg gctgactggg 180
gaagttcgag atctggacct acgtcggtt atcagggggg ttctggacct ggatcgccgg 240
tgagtggctg gagaggctcg ag 262

<210> 1067
<211> 123
<212> DNA
<213> Homo sapiens

<400> 1067

gaattcgcg cgcgctcgac cgtcgattga attctagacc tgcctcgagt tctcaattct 60
gttaacaatt taaaatttca ttaattgtgt ttaatatcaa tgaatctcaa aaggctcctc 120
gag 123

<210> 1068
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1068

gaattcgcg cgcgctcgac ggggttctgt tccatataca cattgtttat ttcgattcc 60
tcagaagatc ctttattatg aataacctca gtgtaatgtt aatttcccgt ccccatgtca 120
aaattgtcac cctaagcctt tttttttttt tttttttttt ggagacgggc tcaactctgtc 180
agccacgctg gagtgcagt acatgatctt gactcatggc aggettggacc tctggggctc 240
aaggaccacc tcccagcac tcgag 265

<210> 1069
<211> 153
<212> DNA
<213> Homo sapiens

<400> 1069

gaattcgcg cgcgctcgac gattgtagat attgggctgt taattgtcag ttcagtgttt 60
taatctgacg caggcttatg cggaggagaa tgttttcatt ttacttatac taacattagt 120
tcttctatag ggtgatagat tggccactc gag 153

<210> 1070
<211> 563

<212> DNA

<213> Homo sapiens

<400> 1070

```

gaattcgcgg ccgcgtcgac agggcacttc ctctaagtaa acacaaatat ttctgtagtg 60
aactgtatgc atattcccac tgagtaaagg ttataagaag cctcagggtca ggtctttacca 120
ccaaacttga aaacacttgg aatgcagctg ggcagggact tgagcagggt ttgtcttgat 180
aagcaggtaa gaatggcaga acactggcct attgtcaacc aatgtttttt tatataacctg 240
aagtattcat tgaattctag acctgcctcg agtatgggga gatgggaaaa ggcagggttag 300
gggcatgcag gctcagggaag cagggtcttg gtgggtggat ggatagccat ggaggcagaa 360
agaggcctct gcagggaagaa cctgggagag cggagaggag gtggtgaggc aggggagcac 420
tatggaatgg ccctgaggcc agggggggct caggatgacc agggaaaagc acagctgggtc 480
caggatggag gggaggcctg cacagcatga gcaggaggct agaggagaca gaccatgagg 540
ccctggggaga cccctcactc gag

```

563

<210> 1071

<211> 511

<212> DNA

<213> Homo sapiens

<400> 1071

```

gaattcgcgg ccgcgtcgac gtgatgcct tctagtctca gtgaatttaa cctgtgattt 60
tatgtctacg tatattgttc ctttaactga cccaccacat gcgggccata aaatgagtga 120
aatcacagtg caccctgttc tcttattttt gaagtgttcc acgatttcca gcatgtccat 180
cagatggggg gattgctaac ttctctctta ctcattgtac tacattctgt agttctcatt 240
gcatcacttt ggatgtttac ttgaaaagc agaaactgtc tctttaaact tggccctcaa 300
tgtcatttgc gtatctctga gaacaatagc tatgtccac cccagtttgt atttccgttg 360
gttgttggca cttttttctc attcccccat ctcattacct tgtctgtttt ctggcactca 420
ctataatcag ccttgcaacta gagctgtttg tggacttggc ttcacccctt cctcctcagc 480
cctccccac ccattaaatt gcgagctcga g

```

511

<210> 1072

<211> 339

<212> DNA

<213> Homo sapiens

<400> 1072

```

gaattcgcgg ccgcgtcgac agggcatcga gagtagtggg aacgtgggtat gagatcagggt 60
tggaagggtg aatgaagatt gaaaaaaaaa agacggcaaa tagagtagat gctgctagac 120
caattaggaa acttctagtt caggcaagag ataatgatag cataggctga ggacagggtg 180
tggtgatggg gatgcaaaga gcgttaggat tctgagatat ttggcaggta ctgttgatag 240
gtggagtggg ggtagaagag aaagatcatg agtttgactt tagatatgtt aagtttgatc 300
taccttgaag acatccaaga gaagacaccg ggactcgag

```

339

<210> 1073

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1073

```

gaattcgcgg ccgcgtcgac tttgatattc tattccattt ttttcagtct tctttgcctt 60
tgctcttcaa ttttgaaagt ttctattgac acatcctcaa gctcagagac tctgcttagc 120
catgtccggt ctactaatga gcccatcaaa agcattcttc acttctgtca cagtattttg 180
ctctgtatca tttctttttt attcttttcc agaacttccg cteagag

```

226

<210> 1074

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1074

gaattcgcgg ccgcgtcgac gcagatgtcc atttcaacag gcttaagtgc aaccatgaat 60
 ggaatcatcg aatctttgat tcttcctgga ataataagta ttcattcctgt tgtaagaaac 120
 ctggctgttt tatgcttggg atgctgtgga ctacagaatc aggattttgc aaggaaacac 180
 ctcgag 186

<210> 1075

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1075

gaattcgcgg ccgcgtcgac ggtagggtac caccacatat atttataggc ttcagagtgc 60
 gcttagccat tttgaaacca gtcattattct atttggcatg cttctagctt taacaattaa 120
 ccttctttaca ttaatacatg ctttgaatcc agagagtatc tgctgctttg gatctgaaat 180
 ggaactggcag atctgcggag ctacagcaga gaaaaaatac tggggagaat taaaagtctt 240
 cctata 247

<210> 1076

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1076

gaattcgcgg ccgcgtcgac atacctccat ttgcaaacaa aatttcattc ccacttctgt 60
 agtccatcca gagtctgtct ccaaccttgc tctgtctctt gctaaatatt accgtcttag 120
 tggtagattc ctattggcat actaactgct gctattttctt ccattctgaa aacaggaata 180
 acaaatatac ttatcatgat tctacttccc caaatactcg ag 222

<210> 1077

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1077

gaattcgcgg ccgcgtcgac ggtaaagggtg aagttagctt tttctagctt acagttctgt 60
 catccagttc ctgagctaaa ataggcgcta cagttctgat tttggtttg tcatttgagt 120
 ctctggctct tttctgtatg ggtcaagcta gaaggggaca actcgag 167

<210> 1078

<211> 170

<212> DNA

<213> Homo sapiens

<400> 1078

gaattcgcgg tcgcgtcgac atatatttgt atttttgtat gctttggaaa aagacaggaa 60
 ataaacacca aaatgttgcc agtaggtatc tctgtgttaa gattagtgtt attattttct 120
 tttctgtact tttctgtatt tcccaactgt tatataatga gcgactcgag 170

<210> 1079

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1079

gaattcgcgg ccgcgtcgac ctaatgcac acagcattct ttgaaatgga accagacaca 60
 gcctgcctct caatcctcag ctgggggctc ctacagcctt cttgtattta ctcagagtgt 120
 acacatcaca cagatcctgt ttggcattcc taccttacgg acgtctcagg ggtgacagga 180
 ccagggcaga gccccgtac aaacagacaa ggctgcaatc tcgag 225

<210> 1080
 <211> 214
 <212> DNA
 <213> Homo sapiens

<400> 1080
 gaattcgcg cgcgctcgac cgcattgtcca gtgggctggg aagcaagcac ttgaagagaa 60
 ggaaggggag aaaggggtccc ccttgctgtc tgcctctgag gaatggaaat cctttagacc 120
 cggccttttt tggaccaata taaatttaatt ttaattgac agccttccat ttttcgagaa 180
 agtacaaaca gaactgcttt agcaccact cgag 214

<210> 1081
 <211> 102
 <212> DNA
 <213> Homo sapiens

<400> 1081
 gaattcgcg cgcgctcgac gtgggtgtctc tacaatactg tgctttttct ctccattaac 60
 ataatgcata tgagagtact tctccttcag catgttctcg ag 102

<210> 1082
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 1082
 gaattcgcg cgcgctcgac agccaatata tttcatttta aagcaagcaa taaaaactta 60
 tttcgtgttt taatattttt attgacttta aaaagacttt gaacttagtg aaagagaatc 120
 agtcacctag aaatgtactg ctctcatcta gctgggaagg tcattgtaat tttcttctat 180
 atagatttgt ttgctctaga taagcggctc aatttgaata gatttttagt ggtagaaaga 240
 gatgacggaa gcacattaat ggaacaactc gag 273

<210> 1083
 <211> 264
 <212> DNA
 <213> Homo sapiens

<400> 1083
 gaaattcgcg gcgcgctcga ccctaaaccg tcgattgaat tctagacctg cctgctttcc 60
 tgcctgcccc acctgcctca tattgtgtgg gccttttttt gtttgtttca ttcattgttt 120
 tttttttttt aattatttta aatgagattt ttgttttttt taaatgcaat atctctgtat 180
 acagactggc tgggccccac cccctgcgtg tggccctccc acagtatttt gtgcaatgaa 240
 gccctgctcc cagccactct cgag 264

<210> 1084
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 1084
 gaattcgcg cgcgctcgac caacagccag tttggcctcg tggacatccc tgtggagttc 60
 aagctgggtca ttgcccaggt cctgctcctg gacttctgcc tggcgctcct ggccgaccgc 120
 gtctctgcagt tcttctctggg gaccccgagg ctgaaagtgc cttcctgaga tggcagtgtc 180
 ggtaccact gccaccctg gctgcgctg ggcgggaacc ccaacagggc cccgggaggg 240
 aacctgccc ccaacccccc acagcaaggc tgtacagtct cgcccttggg agactgagct 300
 gggaccccca cagccatccg ctggcttggc cagcagaacc agccccaagc cagcaccttt 360
 ggtaaataaa gcagcaactc gag 383

<210> 1085
 <211> 282

<212> DNA
<213> Homo sapiens

<400> 1085

```
gaattcgcgg ccgcgtcgac ctttgagatt gtcacttctg tacataaacc acctttgtga 60
ggctctttct ataaatacat attgttttaa aaaaagcaag aaaaaaagga aaacaaagga 120
aaatatcccc aaagtgtgtt tctagatttg tggctttaag aaaaacaaaa caaaacaaac 180
acattgtttt tctcagaacc aggattctct gagaggtcag agcatctcgc tgtttttttg 240
ttgttggttt aaaatattat gatttggtta ctgcactcag ag 282
```

<210> 1086
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1086

```
gaattcgcgg ccgcgtcgac cctgtttatt agaaagttag gagaggatga ttatgttcct 60
tcatectctc agtgtcttag tactccttac aactgcgtta tgttatgacc tacctttgcg 120
atctgccagt tttgggttca gcttaagtga gaattcatat tctgcttcac tggatcact 180
cgag 184
```

<210> 1087
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1087

```
gaattcgcgg ccgcgtcgac gtgagtcacc atgccggct attgcttct tatattgaca 60
gtgggtttgt actctctcta tgcctacgg cactgccatc agatgggtgg aaattatgac 120
aggttgttgc tgggtatcct gtagctaagt aatccttagc gaggaatca ggattagaa 180
ataactcgag 190
```

<210> 1088
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1088

```
gaattcgcgg ccgcgtcgac caaataataa aattgttcaa caggaagctt tcttggecag 60
gtttctccac caaatccata atgctgatgt cctttgccc tatgctcgag 110
```

<210> 1089
<211> 226
<212> DNA
<213> Homo sapiens

<400> 1089

```
gaattcgcgg ccgcgtcgac ctgtaataag cattataatt cctgttctta aaataataag 60
ttcatttaag gaaaaggggg tgaaaggaaa aatctgcaga atttaggtct gagataatac 120
catttcaaag cactgtgata caaattacct atatattgta tatactgtgt gtgtgttaac 180
tacttttatt tgggggcttg ttttgcatac atgtgaaggt ctcgag 226
```

<210> 1090
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1090

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gaattcgcgg ccgcgtcgac ggcaggataa aacaacatag aaaatataaa acaatttttg 60
ctttgaaaaa tacagtgcag gtgaccattt actgcttatt ctgtaatcct tactgtctat 120
aattaacttc agtaacactg aaacttgatg aaaagtttta aaaaattatt tactgtaggg 180
```

acaaagttat atggaatgtt gttattttct atactatctg aatgcactgc cagtgaagac 240
tgtaaagaca gaacacaaac actcgag 267

<210> 1091
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1091
gaattcgcg cgcgctcgac gtcattttgc tttttccct ctggtgaaaa atcattcctt 60
ttttatcccg tggcatatat atgtttgcct ttataaatta ggatcaattt ttgtatgttc 120
aggcagtcac ttttactttg cgtttttcta ttctgtttta aaagcattta tggccaaaaa 180
ctcgag 186

<210> 1092
<211> 282
<212> DNA
<213> Homo sapiens

<400> 1092
gaattcgcg cgcgctcgac gtggtctact cgtggataag ttcaaactaa atggatggga 60
aaaaatataa catcctaaca ttcataaagg aaagctgaag tgggtacatt agaacaagca 120
atgttgctaa ggataagatg agacatttca taatgataaa tgggtgaatt catcaagaaa 180
acagttctaa acaggtgtgt acctaattac agtttcaaaa tacatgaagt aaaatctgct 240
ctcattgaaa ggaaaaatat ataaatcaa aatctactcg ag 282

<210> 1093
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1093
gaattcgcg cgcgctcgac gccttctatt gtgctttgtt tttgtgact tttctgcacc 60
ctgtttcctt tggatattca gttctctcaa cctcaagatt gagacggtgg tgggtatgct 120
tctccaattc catatgacct tcatgtgtt ctggaatata acatgctacg aggtcatcct 180
tcacactact tgtaagccaa cactcgag 208

<210> 1094
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1094
gaattcgcg cgcgctcgac ccttaatgcc atccttcatt gtctttctgg cttctcttct 60
tctggcacag taccattttg ggtctgtgcc ccagtgtgga gcaaacatt gcctgtccca 120
ttctgatata cttcagaatt tgagagcaga agttaatgtg gaacaaaagt tttcaccatc 180
tctcgag 187

<210> 1095
<211> 221
<212> DNA
<213> Homo sapiens

<400> 1095
gaattcgcg cgcgctcgac ggcactgttt tttttttaa cagttaagta ctgatgtcaa 60
cagacaaata tttctgatca gatagtcccc tgtcaacagt agcaaatgtg gtttcataaa 120
gtgggaagaa aacagcattt taaagtaact ttttgggaga ctgatttgag taataataaa 180
actctggtct cccttaagaa aaaaaaaccc ttccgctcga g 221

<210> 1096

<211> 241
 <212> DNA
 <213> Homo sapiens

<400> 1096
 gaattcgcgg ccgcgtcgac tataaataga tttttttgtt gaatgttaat tcagttatat 60
 atttcttctt tgatatgttc tttagttgat gcaggccagt taatatgagt gacttcaagt 120
 ttttagagaaa tacataacaa tgtcagttta taattatttt gttttttata caatttacta 180
 ttttagaatc tcattcatat tccattgtat tcccatgaat gatacttttg gacaactcga 240
 g 241

<210> 1097
 <211> 192
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (29)

<400> 1097
 gaattcgcgg ccgcgtcgac gagacaccna aatccagtcg gtatctaato tggtttttgt 60
 taacttccct caggagcaga cattcatata ggtgatactg tatttcagtc ctttcttttg 120
 accccagaag ccttagactg agaagataaa atggtcaggt tgttggggaa aaaaaaagtg 180
 ctggctctcg ag 192

<210> 1098
 <211> 190
 <212> DNA
 <213> Homo sapiens

<400> 1098
 gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcctcgaga tgctccttct 60
 taacgtgctg gcctctgtgc tcatggcctg catgacgctg ctgccacctt ggttgggagg 120
 cgctcccccga ggcctcccg gccccgacat ctctctgccc tgcggctcct ataaccctcc 180
 cccactcgag 190

<210> 1099
 <211> 152
 <212> DNA
 <213> Homo sapiens

<400> 1099
 gaattcgcgg ccgcgtcgac gtgttgtttg tttgtcagac tcttctgaaa gtttggagtt 60
 aatgggagat gagaaagcat attgaaagaa tacttttctt tttttttaat tattattatt 120
 atactttaag ttttagggta cgagcactcg ag 152

<210> 1100
 <211> 295
 <212> DNA
 <213> Homo sapiens

<400> 1100
 gaattcgcgg ccgcgtcgac ccccgatcca ggcacctggc cctcagcggg cccacctttg 60
 gtatcattgt gaagcacttc cccaagctgc tgcccagggt cctggtccag ggcactgtct 120
 ttgcccgcat ggcccctgag cagaagacag agctggtgtg cgagctacag aagcttcagt 180
 actgcgtggg catgtgcgga gacggcgcca atgactgtgg ggcctgaag gcggctgatg 240
 tcggcatctc gctgtcccag gcagaagcct cagtggcttc acccttcacc tcgag 295

<210> 1101

<211> 259
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (32)

<220>
 <221> unsure
 <222> (48)

<220>
 <221> unsure
 <222> (66)

<220>
 <221> unsure
 <222> (205)

<220>
 <221> unsure
 <222> (212)

<400> 1101
 gaattcgcg cgcgctcgac tattggagtg cnaagtgtg tgattgtngg tgggaattgat 60
 tcaatntctc aatcttttggc ccttgcaaaa aaaccacata taataatagc aactcctggt 120
 cgactgattg accacttgga aaatacgaaa ggtttcaact tgagagctct caantacttg 180
 gtcattggatg aagccgaccg aatantgaat anggattctg agacagaggt tgacaagatc 240
 ctcaaagtga ttctctgag 259

<210> 1102
 <211> 173
 <212> DNA
 <213> Homo sapiens

<400> 1102
 gaattcgcg cgcgctcgac gttaaggagt aggcctcctg agtaaaggag gtgtgatttt 60
 ttttttcttc gaggtgggag tatagtggga actaaataaa ctacgtgtga atttaccata 120
 tcaactaaaa ttttgatcaa atgggttttt taaattgtgt ggtacttctc gag 173

<210> 1103
 <211> 277
 <212> DNA
 <213> Homo sapiens

<400> 1103
 gaattcgcg cgcgctcgac ggggtgggta tgcgccacc ctatttcagg cagcgtctca 60
 agtaggtgga gccgatgtag ccaccccgca tggagcgtg cacgttctgc tcaaacagcc 120
 gccggttggt ctgcaggacc tctgcggcct ccttgttcag tgggtcctcg gggttgggct 180
 ccaagaagag atactgcagg ccataaatta tggagtttat cgtaaggact ggcttccagt 240
 cctctctgag gatgttgagg cagacgttgc cctcgag 277

<210> 1104
 <211> 208
 <212> DNA
 <213> Homo sapiens

<400> 1104
 gaattcgcg cgcgctcgac agaatacttc gccataaata ctgttaagtg ggtaattga 60

tacaagtttc tgtgggtggaa aatttatgca ggttttcacg aatccttttt tttttttttt 120
 tttttttgag acggagtctc gctctgttgc cacgctggaa tgcagtaacg tgatcttggc 180
 tcaactgcgac ctccacctct cctctgag 208

<210> 1105

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1105

gaattcgcg cgcgctcgac gtccctctct ggcattggtg ctcaaattga tgctaactgg 60
 aacttcttgg attttgccta ccattttaca gtatttgcct tctatttttg agccttttta 120
 ttggaagcag cagccacatc cctgcattgat ttgcattgca atacaacct aacgctcgag 180

<210> 1106

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1106

gaattcgcg cgcgctcgac gtgcacgagg ccgcgaattc ggggcgcgtc gacccaggaa 60
 aggcctgttg ggctctctcc cccgcgctcc acacgccttc gcattccacc gaggcgccag 120
 cttctgcttg caggttgctg aaactggcct ggagggttctg acaagaatta gagcggcgcc 180
 cggttgccttg gggatgacct ggaagcgaaa gagaccggca cgaattctag agtttcgggg 240
 ttccgcgggg ttgagattgt acgggaaaca atgcattaac caaacctaaa aatcaaaca 300
 acactcgag 309

<210> 1107

<211> 185

<212> DNA

<213> Homo sapiens

<400> 1107

gaattcgcg cgcgctcgac cagcattagc agaccgaac aggagggaag gaagtggtaa 60
 cccaactcca ttaataaacc ccttggttgg aagagctctt tatgttggaa tggtaacaaa 120
 accagcaaat gaacaatccc aggaattctc aatacacaat gaagattttc caggcattac 180
 tcgag 185

<210> 1108

<211> 269

<212> DNA

<213> Homo sapiens

<400> 1108

gaattcgcg cgcgctcgac atgtattgga tgaacgaata tacctcatcc attggaattg 60
 gagtttttca ttcaggaatt gaagtctatg gcagagaatt tgcttatggt ggccatcctt 120
 accccttttc tggaaatattt gaaatttccc caggaaatgc ttctgaacta ggagaacat 180
 ttaaatTTaa agaagctgtt gttttaggga gcacggactt cctagaagat gatatagaaa 240
 aaattgtaga agaactggga tcaactcgag 269

<210> 1109

<211> 164

<212> DNA

<213> Homo sapiens

<400> 1109

gaattcgcg cgcgctcgac acctgattac tttttcacct ctacaaccag gagaattttg 60
 aatttataaaa taaatccaaa cattttctct catattatea atgettatat attccttaga 120
 ctattgaaat tttggagaaa atgtattttg gttcacttct cgag 164

<210> 1110
<211> 255
<212> DNA
<213> Homo sapiens

<400> 1110
gaattcgcgg ccgcgtcgac gattttaaaa tatttctctc ttaaatttct ctttcacgtt 60
atgaattgtt tttctgattt tattgaatta tctttctgta ttatcttgta tcctatcgag 120
ggttttttgt ttgtttgttt gtttgtgaga cagagtgtca ctctgtcacc taggctggag 180
tgcagtggcg tgatcttggc tcacaacaat ctttgccttc caagttcaag tgattctcct 240
gtcccaaaccc tcgag 255

<210> 1111
<211> 284
<212> DNA
<213> Homo sapiens

<400> 1111
gaattcgcgg ccgcgtcgac agctctttgg cctcagaatt ttcagtagcc agtatttctg 60
attaactaag ttgaaactct tattagaaac tttcagttgg tgatattgta ttctagaaga 120
tataantgag aggtttggct tcctctcagt ttagaaattt attcaaagct aaagatgtat 180
atatacatat acttttgtgt gtatatatac acatatgtgt gtatgcagtt tgtcagggtta 240
tatatagaat ttctattaag gattttttta atggacagct cgag 284

<210> 1112
<211> 303
<212> DNA
<213> Homo sapiens

<400> 1112
gaattcgcgg ccgcgtcgac tgcaattcta atgcattcta cgtttttgaa aatcgataat 60
ccatggaagg tccatgggtt gatacctcag gtcaaaaatg tgtttactct gttgattgct 120
gtttcacttt acttgtatat cagatatata agctatgaac acaagtttgt agtaaaagta 180
tcttctgtct gggcaatggc tcacacctgt aattccaaca ctttgggggg ctcagggtggg 240
aggatttcta gtccccagga gtttgagacc agcctgggca ataaactaga cccactctc 300
gag 303

<210> 1113
<211> 105
<212> DNA
<213> Homo sapiens

<400> 1113
gaattcgcgg ccgcgtcgac ggggcttgta atttacatga gaaccgtgct ggtcactagc 60
gctgtctgtg tctgtctgtc ctgcgggacc tctgtctccc tcgag 105

<210> 1114
<211> 216
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (73)

<220>
<221> unsure
<222> (86)

<220>

<221> unsure
<222> (104)..(105)

<400> 1114

gaattcgcg cgcgctcgac gagaggagac acaggaagcc cagagagcca gatcgagaca 60
agaaacaccg agnaaaaagc agcaccnaggg aaaaaagaga gacnnattcc aaagagaaaa 120
gtaattcatt ctctgacaaa ggggaagaaa gacataaaga aaagcgacac aaagaagggtt 180
ttcattttga tgatgagagg caccgctata ctcgag 216

<210> 1115

<211> 286

<212> DNA

<213> Homo sapiens

<400> 1115

gaattcgcg cgcgctcgac gctttctggt gattgggacc ctgatgccaa gtgccacttt 60
tgcaagaag aaaaagttta tgacctgct cccttggtc ctgtccatgc ttgcttgccc 120
tcttagagtt ggaggaacaa gccctctcct ggcagaggca ggagagcaag tgctctccta 180
tgatccaata catcaggcgg gaggctgag tccgtcagga caccactcct cgcagcatca 240
aggctcagtg ggggttggtc agggcagtga gaaggggtg ctcgag 286

<210> 1116

<211> 170

<212> DNA

<213> Homo sapiens

<400> 1116

gaattcgcg cgcgctcgac gaagaaaata ccaagtgttc attctgtcat tagcaaggaa 60
caccaatgag gttctttttt tttctctatt tagggcatat taaaattatc cttcagagta 120
cttgatttga aaatcaagtt tatgcttctg aaaagaatcg tgggctcgag 170

<210> 1117

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1117

gaattcgcg cgcgctcgac atttctcttg gaattgggct gctaacaaact tttatgtatg 60
caaacaaaag cattgtaat caggtttttc taagagaaag gtccctcaag attcagtggt 120
cttggttact ggtattctta gcaggatctt ctgttctttt atattacacc tttcattctc 180
agtcactcga g 191

<210> 1118

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1118

gaattcgcg cgcgctcgac gttcttttcta tggaaaccag ttggaaaaga tcatttgtta 60
accaggggct ctgttcttat agatgcatac cagaatgac caccagtcaga actttgtggg 120
cctcttggtta atgctggaaa ttttcaaca ggcctggaag acagccggac tcgag 175

<210> 1119

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1119

gaattcgcg cgcgctcgac attctatagg attttctata tacgagatta tgccgtctgt 60
gaaaagagat cgttttattt cttcctttgt gatctggatg accttattt cttttcttg 120

cctaattgcc ctgattagaa ttccactac aatgttgagt atttgggta agagcagata 180
 ttcttgtcct gttcctgac tegag 205

<210> 1120
 <211> 276
 <212> DNA
 <213> Homo sapiens

<400> 1120
 gaattcgcgg ccgcgtcgac cacagacata gttctaaatg actttcagct atttctagaa 60
 attagacaca tcttcctaag cgaagggtta ccatgtttaa gggtccatga aagaatgtgc 120
 cctaagttgt tgcccagccc ctggctgaga agaaacgggc gtgtgggagg cgggtgaaga 180
 gcacacaggg aggggacgga gaagctcctg agccagcctc cttcatggct cagtttcatt 240
 tcagtgcgtg gcacttccca gaagaaacga ctcgag 276

<210> 1121
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 1121
 gaattcgcgg ccgcgtcgac gggggttccc cctgctgagg agagaccagg tggaccccag 60
 ctgcctgtca cccttcattt gggacttget gtcaaaccct aggtatgtct cataaagggg 120
 aggttggggc agcctgctgc tgtctgcttc aggaccaggc agagagttag gctgggggtt 180
 ctcacacctt actccacggg gcacatccca acctgcactg gggccacccc gageccttgt 240
 tctggtctca gccgtccct tggcagctgc agccccatg cagaagaggc tcccaggccc 300
 aagctctgtg tgacccagag aaataatgat gcactcgag 339

<210> 1122
 <211> 168
 <212> DNA
 <213> Homo sapiens

<400> 1122
 gaattcgcgg ccgcgtcgac ccatacccag cctgtttaat tctttataat tcacttctgt 60
 tgtgaaaaca gcattttata cttaagctta atgattgcaa cagtcaaat tattttattt 120
 ttaaaactta cttatcattt aggaattatt ttcccgcaag gactcgag 168

<210> 1123
 <211> 202
 <212> DNA
 <213> Homo sapiens

<400> 1123
 gaattcgcgg ccgcgtcgac attcatctag catggaaggg agtgaacag gttctcgga 60
 gggttcggat gttgcctgca ctgaaggcat ttgtaatcat gatgaacag gtgatgactc 120
 ttgtgttcat cactgtgaag acaaagagga tgatggtgat agttgtgtt aatgttgggc 180
 aaattctgaa gcagaactcg ag 202

<210> 1124
 <211> 172
 <212> DNA
 <213> Homo sapiens

<400> 1124
 gaattcgcgg ccgcgtcgac cattattgta aataaaacct aatattttta actatatata 60
 tctttttaat tagattacac caccaccttc actgtcagat ccacttaag agctttttcg 120
 acaacaggaa gttgtaagga tgaaactacg ttgcaacac agcatactcg ag 172

<210> 1125
 <211> 164

<212> DNA

<213> Homo sapiens

<400> 1125

gaattcgcg cgcgctcgac cgattgaatt ctagacotgc ctaggcacag atgctaattgc 60
 aggcactgca ggtaagctgg gcttggatc cttccctggc ttcagaaaga agccaacaag 120
 gagcgttttg cagaatgaaa cctttgttcc cacaagcact cgag 164

<210> 1126

<211> 563

<212> DNA

<213> Homo sapiens

<400> 1126

gaattcgcg cgcgctcgac atttggcat tgggaattac tgctattgaa ctagccaagg 60
 gagagccacc taactccgat atgcatccaa tgagagttct gtttcttatt cccaaaaaca 120
 atcctccaac tcttgttggg gactttacta agtcttttaa ggagtttatt gatgcttgc 180
 tgaacaaaga tccatcattt cgtcctacag caaaagaact tctgaaacac aaattcattg 240
 taaaaaattc aaagaagact tcttatctga ctgaactgat agatcgtttt aagagatgga 300
 aggcagaagg acacagtgat gatgaatctg attccgaggg ctctgattcg gaatctacca 360
 gcagggaaaa caatactcat cctgaatgga gctttaccac cgtacgaaag aagcctgac 420
 caaagaaagt acagaatggg gcagagcaag atcttgtgca aaccctgagt tgtttgtcta 480
 tgataatcac acctgcattt gctgaactta aacagcagga cgagaataac gctagcagga 540
 atcaggcgat tgaagaactc gag 563

<210> 1127

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1127

gaattcgcg cgcgctcgac ctcttagctg agcaggcgag agcatcatgg ataccgactt 60
 atatgatgag tttgggaatt atattggacc agagcttgat tctgatgaag atgatgatga 120
 attgggtaga gagaccaaag atcttgatga gatggatgat gatgacgacg acgatgacgt 180
 aggagatcat gacgatgacc accctgggaa actcgag 217

<210> 1128

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1128

gaattcgcg cgcgctcgac gaaaaccgct acattgtcct ggccaaggac ttcgagaaag 60
 catacaagac tgcatacaag aaggacgagc aggagcatga gttttacaag tgacccttcc 120
 cttccctcca ccacaccact caggggctgg ggcttctctc gcaccccccag caccctctgtc 180
 ccaaaaacctc attccctttt ttcttttacc agagctctctg ag 222

<210> 1129

<211> 185

<212> DNA

<213> Homo sapiens

<400> 1129

gaattcgcg cgcgctcgac ggctgcagac agacaaacac ctgagctgtt ctgaatacct 60
 tcaggttcct ggctccctg agcaagtga gaaattttta ccttcaagga tcagggtttt 120
 tctgtttgtt tgttttttaa cacacatata tgtgaacaaa gagtatgcgt ttgtactggc 180
 tcgag 185

<210> 1130

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1130

gaattcgcgg ccgcgtcgac cgtgtgagtg tgtgtttgta tacgtctggc aattaaagct 60
 ttgtcttctg gaacttagtg aattcttttc tctttttcct ccagaagtat ttgttacaag 120
 atttgtaaat aagagctcta cttagtttgt ttaccatgaa cctcgag 167

<210> 1131

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1131

gaattcgcgg ccgcgtcgac cttttgcttc tcttctctta caattctact ctccttttcc 60
 tgtctctttt ccaatctatc ctcatttctt cctctgcct cctctcttat cctatactta 120
 tggctgctca acttctgtct attcctcttc cctctctctt tcccacctgc ctgttcatcc 180
 tatttctctc tcttgcctgt ctatcccccac cgctcgag 218

<210> 1132

<211> 354

<212> DNA

<213> Homo sapiens

<400> 1132

gaattcgcgg ccgcgtcgac ctttttgatg ttttgttttc tatttttatt ttctgttttg 60
 tgtgtctgca tgggtgtttt cgggcagcgg cttctgccat catcaccaca tgtttctctg 120
 ctgcccactg tcttgagggt ggcctgcgtg gaagccctgc ttcttgcctg ttgcgggacg 180
 agtcccgccc tcttttttcc tgccccatc ggtagtctgc gtgcacgtgt tttccacagt 240
 aaaaccgtgt tgtgtaactc tttccagcaa agtaacaatc cgccattaca aaggctcgtc 300
 tctttgatcc agttaacgag tcagaactct tctcccaatc agcagaacct cgag 354

<210> 1133

<211> 464

<212> DNA

<213> Homo sapiens

<400> 1133

gaattcgcgg ccgcgtcgac agacttgcca ctggaataga agaactacgt actaagctga 60
 tacaaataga agctgaaaat tctgatttga aggttaacat ggctcacaga actagtcagt 120
 ttcagctgat tcaagaggag ctgctagaga aagcttcaaa ctccagcaaa ctggaaagtg 180
 aaatgacaaa gaaatgttct caacttttaa ctcttgagaa acagctggaa gaaaagatag 240
 ttgcttattc ctctattgct gcaaaaaatg cagaactaga acaggagctt atggaaaaaga 300
 atgaaaagat aaggagctta gaaaccaata ttaatacaga gcatgagaaa atttgtttag 360
 cctttgaaaa agcaaaagaa attcactcgg aacagcataa agaaatggaa aagcagattg 420
 aaagacttga agctcaacta gagaaaaagg accaacagct cgag 464

<210> 1134

<211> 159

<212> DNA

<213> Homo sapiens

<400> 1134

gaattcgcgg ccgcgtcgac gttgggttat ttgtctcatt ataatgttta ggaattgttt 60
 atatattcta gatatatgtt ccgtattgga tatatgattt gcaaatgttt ttctgcattc 120
 tttgggttat cttttcactt ctttggtagt gaactcgag 159

<210> 1135

<211> 419

<212> DNA

<213> Homo sapiens

<400> 1135

```

gaattcgcgg ccgcgtcgac aaggaatctg agaaaaaggg gttgattgaa agaattctata 60
tggtagagga tattgtttca actgttcaaa acgtcttgga ggaaatagct tcttttggag 120
aaaggattaa gaacacattt aactggacgg tccccctctt tcatctctg gctgtttga 180
ttctggcagc agccaccatc attttgtatt tcattccact gcggtacatc attttaatct 240
ggggcataaa taaatttact aagaagcttc gaaatcccta ttccatcgac aataatgagc 300
tactagactt cctctctagg gtaccgtctg atgttcaaaa ggtgcagtat gcagaattga 360
aactctgcag cagccacagc cccctgcgga agaagcgcag cgtccaggg caoctcgag 419

```

<210> 1136

<211> 238

<212> DNA

<213> Homo sapiens

<400> 1136

```

gaattcgcgg ccgcgtcgac gcatatcagg agagaagttg ggagtcttcc aggtataccc 60
cgtttccatg tttttggtag taaaagggat gctttgcaaa gcccttgatc agtttcccag 120
cattttggtt tggatgactt tgacaagtgt tgggaagtgg aggggtgttg tggctgatgg 180
tgtctgtttc cccagggccc gcctgaactg taagcactgt gggaagcagg ctctcgag 238

```

<210> 1137

<211> 220

<212> DNA

<213> Homo sapiens

<400> 1137

```

gaattcgcgg ccgcgtcgac tgggcttcaa ctgatgttt ttctgctgcc agaagttcca 60
tatattctgt ttcttccttt attgcagcct ctctcagggc ctccaggctc tgccggtcgc 120
tctccttcat gttcacgaca tctttgtaat cccctgcag ggctctctgc agtccgtaga 180
cagcttgga aacggaattt tcaattccat tcagctcgag 220

```

<210> 1138

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1138

```

gaattcgcgg ccgcgtcgac caaggaaatg tgagcccccag gctgcagaag gaagagtcag 60
tgaatggctg cgggttgaca acatgcacca ccagtggctt ctgctggccg catgcttttg 120
gggtattttc atgttcattg tggctagcaa gttcatcacg ttgaccttta aagacccaga 180
tgtgtacagt gccaaacagg agtttctgtt cctgacaacc atgccggaag tgaggaagtt 240
gccagaagag aagcacatc ctgaggaact gaagccaaat ggggaaggag ttccagacag 300
ccagctcggt cagccgagtt ctcgag 326

```

<210> 1139

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1139

```

gaattcgcgg ccgcgtcgac ctggaaaatc ccaaatatt tggaaaccat atagcacact 60
tacttctaaa attgtggtag aatacatata acatagaaat tattgttcta accattttta 120
aatgtacaat tcagtggctt taagcacatt cacattgttc tgtttatcta cagaacgctt 180
ttcatcttgc aaaactgaaa ctctgtatc attaaacact aactcccat tttctcttc 240
ccccatatcc ctcgag 256

```

<210> 1140

<211> 320

<212> DNA

<213> Homo sapiens

<400> 1140

```

gaattcgcgg ccgcgtcgac gactgatgtt ggagtctatg ctcactctgga tgtacttcca 60
gtcaaaactca atgccccggg ctccgaacca taggggaatg cagcgggaca taataagctc 120
agcagtggcc cagcccaggg cagcaaccat gatcttgtag tctcccttgc cggcattccg 180
ggacatgaca aggttttagac ctatcaggtc tgccacatcc acgctggcct tcatgaactc 240
cccaatgaag tcatagatgc cgccttccca ggtgggaaag aaagtggcca agaacagcat 300
cttgacagagg cggactcgag                                     320

```

<210> 1141

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1141

```

gaattcgcgg ccgcgtcgac ggctttctct gaaatgcca agccaccga ttattcagag 60
ctgagtgaact ctttaacgct tgccgtggga acaggaagat ttccgggacc attgcacaga 120
gcatggagaa tgatgaactt ccgtcagcgg atgggatgga ttggagtggg attgtatttg 180
ttagccagtg cagcagcatt ttactatgtt tttgaaatca gtgagactta caacaggctg 240
gccttgggaa acattcaaca gcacccctc gag                                     273

```

<210> 1142

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1142

```

gaattcgcgg ccgcgtcgac tcgaggagtg ccctaatacg cgaggacccc caggcggcgt 60
tagaggagct gactaaggct ttggaacaga aaccagatga tgcacagtat tattgtcaaa 120
gagcttattg tcacattcct cttgggaatt actgtgttgc tgttgctgat gcaaagagac 180
ctcgag                                     186

```

<210> 1143

<211> 289

<212> DNA

<213> Homo sapiens

<400> 1143

```

gaattcgcgg ccgcgtcgac tgccctcagc cctttgcact ggttggtccc ttagtctgag 60
atccactttt acccattgtt cactttctca tttcattttg gtttctctca aacattgtct 120
cattatagaa accttgccgt acaactctaa catgtcagcc tctctgcgt tottaggacc 180
tttctctcct cttacctgct ttttcttctt cccactatg atttggtatc aaaatatttg 240
tgcattttgc aattcagtg ttacagcctg tcaagccacc caactcgag 289

```

<210> 1144

<211> 534

<212> DNA

<213> Homo sapiens

<400> 1144

```

gaattcgcgg ccgcgtcgac gctgccttta ctctctgagc cttgactctg tcccaggcct 60
gccctggagc gcctgcacgc tcagctccct gaggtagggtc cggagggaga ccccccgctg 120
ccccccgccc tcggccaggga tacctctcac ctcatgtccc ctccctcaga cccccacagc 180
cctggatgcc ccatagcagc cctgccacgg ctggcagaac tgcctccacc ctccaccaac 240
ccccaaagaca ggcaggctga cgcggccggc aattcgcggc cgcgtcgacg tggagaagga 300
cgtgccgtgc cgtgggttc tgagccggag tggctgggtg gtgggatgga ggcgacctg 360
gagcagcact tggaaagac aatgaagaat ccctccattg ttggagtccct gtgcacagat 420
tcacaaggac ttaatctggg ttgccgggg accctgtcag atgagcatgc tggagtgata 480

```

tctgttctag cccagcaagc agctaagcta acctctgacc ccactgaact cgag

534

<210> 1145

<211> 149

<212> DNA

<213> Homo sapiens

<400> 1145

gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc tagacctgcc tcgagaacca 60

ccccccacct ttgggctct tcatttattc cttaaatgtt attcctcaga cctccatttt 120

tttttctct cttaatcaca ccactcgag 149

<210> 1146

<211> 138

<212> DNA

<213> Homo sapiens

<400> 1146

gaattcgcgg ccgcgtcgac tctagacctg cctcgcggaa cttcagtttg taaacaggct 60

ctggtttcac aaggtctaag aactccaggc gaaattcata gacattgtct cctttggcac 120

catgtccttg ggctcgag 138

<210> 1147

<211> 246

<212> DNA

<213> Homo sapiens

<400> 1147

gaattcgcgg ccgcgtcgac gttttgtctg cttttaaatt ctgtattata ctgcatgtac 60

tccttttatgg cgtgcttttt tccttggtat tgtatcatga acactagttt gtttttcttg 120

tttttctttc cgttctgttc ctggacattt ttattttcag gatttggttg tatcatatca 180

gaaagaaacc tgtactcaat ggcagttact cctcatttct catcctcttt cccccgaac 240

ctcgag 246

<210> 1148

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1148

gaattcgcgg ccgcgtcgac gttcactgag cacttacata gattaacagt tacaagtttc 60

cataaatcag ttagaatatg actagcttca ggaaggaat tttaacaac tgcaatcttt 120

gattgtttta ctgtgggaac ttgcagtgat ataattgaca acattattta acaataatag 180

gtatctcgag 190

<210> 1149

<211> 361

<212> DNA

<213> Homo sapiens

<400> 1149

gaattcgcgg ccgcgtcgac tgattatagc aaattcatac aaaccagacc taaaagaaaa 60

ctcagaaagc aacatggcaa tggaaaaaga aattggaaga ccagaggcac aggaggaaga 120

ggcagatggg gaagatgacg tagatggagt agaggaggca gaggaagagg aggcagggga 180

cgagggagtc gaggaagagg tggaggtggc actaggggga ggggaagagg gagaggagga 240

agaggtgctt cttagaggac taccagagcc aaacgagcac gtattgcaga tgatgaattt 300

gataccatgt tttcaggacg tttcagtaga ctgcctcgaa ttaaaacaag aaaacctcga 360

g 361

<210> 1150

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1150

```

gaattcgcg cgcgctcgac ccactgcgca cagcccatTT atattaaagt gaagttgatt 60
atagtttcat atgtcttaag gaccattaaa aaaatTTTT ttgtgaatta tttattcata 120
ttttgcttat ttctcaacag gatatttggt ttttcccttc aatttttta agttcttcaa 180
gtattagggg taatgtcatt atctgtgaag tgttttgcat atatttgctc agcttggttt 240
ttgactttgc ttgttttttg tttttattct tttttgccac acaagccaga tctcgag 297

```

<210> 1151

<211> 346

<212> DNA

<213> Homo sapiens

<400> 1151

```

gaattcgcg cgcgctcgac caagtatggt ctcagaagct atacactcat tatctgatac 60
ttgtaatcag ggtttactag cattgggcat cagtaagtct gttcaaacac cagatccttc 120
tcattccgtac ggattttcaa atatgcgcta tatttctctg ctaattagtg gtgttggtat 180
tttcatgatg ggtgcaggac tatcttggtt ccattggagtc atgggattgc ttcattcctca 240
accaatagaa tcccttctat gggcatattg tatttttagca ggatcattag tatctgaagg 300
agcaacactt cttgttgctg taaatgaact tccaggaaag ctcgag 346

```

<210> 1152

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1152

```

gaattcgcg cgcgctcgac ctgaatgccc catgcgcacc ccacagctcg cgctcctgca 60
agtgttcttt ctggtgttcc cegatggcgt ccggcctcag cctcttctct ccccatcagg 120
ggcagtgccc acgtcttttg agctgcagcg agggacggat ggcggaaccc tccagtcctc 180
ttcagaggcg actgcaactc gcccggccgt gcttggactc cctacagtgg tccctactct 240
cgtgaactcc ctcgag 256

```

<210> 1153

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1153

```

gaattcgcg cgcgctcgac tagaagtga cagagaatta cacaagtgtg actatacaaa 60
ttgtaaaaca gatactataa tatttctttt tatttttagt ttatttagct ttattacaga 120
ttctattttt tgtcaaaact tcatgggtcc tttcaagatc ttttttgcca aaacactcga 180
g 181

```

<210> 1154

<211> 304

<212> DNA

<213> Homo sapiens

<400> 1154

```

gaattcgcg cgcgctcgac agaatatatt attccacag gaaaaactca gaaaagggtg 60
gtaaaatcct cagaaggggg agcagttgat tcagtaagac tgcgacaatt taatactgtt 120
acgcttgctt tgatacctga ctaaagtga ctgagtgcac caagcattta agaaaatttt 180
tagacagtgt tttgtttaga attcagggat catgcattct ttaatggtgc tgtttggttt 240
ttatttcttt tctacaaaga aaacaagtgt tgctacaaa agtgactgct cacaatacct 300
cgag 304

```

<210> 1155

<211> 194

<212> DNA

<213> Homo sapiens

<400> 1155

```

gaattcgcg cgcgctcgac attggatttt ggtccatagt tggaggctgt gttggttgaa 60
tagctatggc aaggtttgca gattttatca ggggtatgct gaaactaatt cttctcctcc 120
tgttttcggg agctacactg tcattccacgt ggttcaccct gacctgtttg aacagcatca 180
cacacccct cgag 194

```

<210> 1156

<211> 537

<212> DNA

<213> Homo sapiens

<400> 1156

```

gaattcgcg cgcgctcgac gcttagaggt catctttcaa ggaggcatta aatatcaatt 60
ataaattatt aagtcagata aatatgctg accttttcac agttgaaaaa atacattttt 120
tccctcttat caaatgccaa gtttttagtg gaaatgctaa tggcagtggg aaagggtgac 180
tcactttcag agagactctc gctgtctgca cccttttaat aattgctctt cctggcaagg 240
ctgccacttc cctgcctccc cagctggcag tggggcaacc caggcctgtt tccagctacc 300
tgcaaagcca gacctagacc tgccgtagct gttgtcccat gcctaattct agttacagga 360
agccatccct gtaccctggg tccattcaca ggaatgggtt ccagaggagg ctgtagaag 420
ggtttgaaat gactggctgg atcccttctt gctcagacac agtggtagct ggagagcagg 480
cagagatggg agaattgcag gtttgaccac ctgtcgtgac cccagaagct actcgag 537

```

<210> 1157

<211> 580

<212> DNA

<213> Homo sapiens

<400> 1157

```

gaattcgcg cgcgctcgac cacttttaaa aaacaaaaaa agacaagaga gatgaaaacg 60
tttgattatt ttctcagtgt atttttgtaa aaaatatata aagggggtgt taatcgggtg 120
aaatcgctgt ttggatttcc tgattttata acagggcggc tgggttaatat ctcacacagt 180
ttaaaaaatc agccctaata ttctccatgt ttacacttca atctgcaggc ttcttaaagt 240
gacagtatcc cttaacctgc caccagtgtc caccctcggg cccctgtctt gtaaaaagg 300
gaggagaatt agccaaacac tgaagcttt taagaaaaac aaagttttaa acgaaatact 360
gctctgtcca gaggttttaa aactgggtgca attacagcaa aaagggtatc tgtagcttta 420
acttgaaac cacatctttt ttgcactttt ttataagca aaaacgtgcc gtttaaacca 480
ctggatctat ctaaatgccg atttgagttc gcgacactat gtactgcgtt ttctattctt 540
gtatttgact atttaactct ttctacttgt cgcctcgag 580

```

<210> 1158

<211> 397

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (27)

<400> 1158

```

gaattcgcg cgcgctcgac ctgccangtg gatgagaagt gattacctgt ggaaattcat 60
agtgttatct ttttatagca ttcatctaca aaggttggat ttatgtaggc ctcttccttt 120
tggtctttat tgcatatatt caagagaagc ttatgtggag ttagttcacc atattagaga 180
atctattcca ggtgtgagcc tcagcagcga ttctattgct ggcttttgtg gtgagacgga 240
ggaagatcac gtccagacag tctctttgct ccgggaagtt cagtacaaca tgggcttctt 300
ctttgcctac agcatgagac agaagacacg ggcataatcat aggttgaagg atgatgtccc 360
ggaagaggta aaattaaggc gttcggagga actcgag 397

```

<210> 1159
 <211> 198
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (30)

<400> 1159
 gaattcgcgg ccgcgtcgac agattatatn acaatttata ttcaattcta gattctaagt 60
 ttcttttggg caagaatatt tattttccct gtgtcaatto agggactcca ggaaacagaa 120
 gctaagaaca gaagcaagtg ctggagattt actgagaggt tacacttgtg gaagatgaag 180
 tgtagcggca tcctcgag 198

<210> 1160
 <211> 186
 <212> DNA
 <213> Homo sapiens

<400> 1160
 gaattcgcgg ccgcgtcgac attaaagggtg aagttctgca aatgggagag tgttcacagt 60
 agatagctca gattgattga acacatttga ggaagagact cctgcatgag ataccagcat 120
 ttttacaat actttttatg tacattctct attttgtcat tttgtcaacc ctctcccaa 180
 ctcgag 186

<210> 1161
 <211> 298
 <212> DNA
 <213> Homo sapiens

<400> 1161
 gaattcgcgg ccgcgtcgac gcttggcaag gagactaggt ctagggggac cacagtgggg 60
 caggctgcat ggaaaatatt cgcaggggtcc cccaggcaga acagccacgc tccaggccag 120
 gctgtcccta ctgcctgggtg gaggggggaac ttgacctctg ggaggggcgc gctcttgc 180
 agctgagcga gcccggggtgc gctggtctgt gtggaaggag gaaggcaggg agaggtagaa 240
 ggggtggagg agtcaggagg aataggccgc agcagccctg gaaatgatgc aactcgag 298

<210> 1162
 <211> 224
 <212> DNA
 <213> Homo sapiens

<400> 1162
 gaattcgcgg ccgcgtcgac gccagttata gactgtccag catccaagac gtttcgggta 60
 tgtcgggtcc tcagatcgcc totgacttgt taccacaaca aatcattttg atttcagtgc 120
 ctgttgggga cttgatttct totcagtttt gtttggttgt ttgtttcctt aatctggctc 180
 atttgaaatt tcttctccct ctcaaccatc ccactaatct cgag 224

<210> 1163
 <211> 314
 <212> DNA
 <213> Homo sapiens

<400> 1163
 gaattcgcgg ccgcgtcgac cccatggcca ccttgtccta tgagctcacc agctccacce 60
 tggagatatt aacagtgaac actgtcaagc agacacctaa ccacatcccc tcaacgatca 120
 tggcaaccac ccagcctcca gtagaaacca ctgttccctg gatccaggat agcttcccat 180
 acctgtctgc tgaagacttc tttggacagg aaggcccccg gccaggtgca agtgaggagc 240
 ttcacccac cttggagtcg tgtgtggggg acggatgtcc tggcctcagc agaggccctg 300

tgatcgccct cgag

314

<210> 1164

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1164

gaattcgagg cgcgctcgac gtaataaatt attcactgtt tcttttggtg actgtgattt 60
aaaaaaagaa aaaagaaaaa aaagctttat acgttttagg ttgtgctttt gtaatagatg 120
aaaaaagggtg cgcttaaaaa gaaaatgtat gtttttttcc ccttttggtt tttatttatg 180
ctggattggg gaaagttgca gaatgagcgc caactcgag 219

<210> 1165

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1165

gaattcgagg cgcgctcgac atccctcagt gaacatttgg gttgcttcca ccttttaact 60
tgtgtagctt tttttggggg gatatttttg ctctcaaaag gacaaaggaa aaaattaggt 120
tcagttgcta ggattactca catgagggtg ggcattggga ggaccatact cgag 174

<210> 1166

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1166

gaattcgagg cgcgctcgac gatacttatt gctgcctctg caccaatatg ctttccgaag 60
tgctgttgtt tctctctcaa tatttgacac tttgtgtgga tatccaaact atgctggccc 120
agaatgcaaa taatagagca gcacaccttg aagagtttca ttaccaaaca aaagaagacc 180
aggagatcct gcatagcctt cacagagagt ccaccctcga g 221

<210> 1167

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1167

gaattcgagg cgcgctcgac tgggttttca catgetattt caggcttgcc ttttttatct 60
gtattttctt gtagcagttt gtcgacctga gaaatggcct cttccacaga atctcgag 118

<210> 1168

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1168

gaattcaaca agaggcagtt ctttactaat caacatataa cttgaatacc tgggcaaaga 60
caaattattc aggtggacaa agaaataaat gaataaaaagt gggattcaaa tttttgattt 120
cataagttcg gaaataagta atcaagaaac ctaactaata aaccacacaa tcactgattt 180
gcaaacttga acaccaaaga aaaagatatt ttatggtaac tatattcatt tttttgttc 240
tccctata 248

<210> 1169

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1169

gaattcgcgg ccgcgtcgac cagcctggaa ggtaatgcat gtccatggta cacaaattca 60
 caagggtttgt aaacgagaaa agacgtgagg ttccctttgt tctttacctg tggcctccct 120
 gccctacacg gggactctag ggtggaatgt agcaaagccc atccaccagc catgtactac 180
 cccccccgc tcgag 195

<210> 1170

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1170

gaattcgcgg ccgcgtcgac gtgggtggaca gctgtagtga taatgttgat agtaggtata 60
 ataacaccag tgttttattt gctgtattat gaaatttttag ctaagggtgga tgtagtcat 120
 cattcaacag tggactcttc acattttacat tcaaaaatca caccctcatc acagcagaga 180
 gaaatggaaa atggaattgt gccaaactaaa ggaatactcg ag 222

<210> 1171

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1171

gaattcgcgg ccgcgtcgac tagaagaaac ccagaaattc agtcttttct gttttattgg 60
 cagtggctag catgttctct gggccaacta aagttcgaag cagggccata agctggactg 120
 ctctccaag ttccaggatct gtatcacaag tcatatgttc tataatgagg ttgatgagca 180
 aaatatcctt gctggttatt ttttgcctcg ttaacttctt acttacatca tcattctgtt 240
 gtgcctcctg catgacaaac tctcgtacca tggatggatt atattcaacc aagtatgaga 300
 atatatcact cgag + 314

<210> 1172

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1172

ggaattcgcg ccgcgtcgca cgcatttatt aaccagagta cttgtttgca attttttatt 60
 tgtgaaaata ttttaagct cttacaaaac ttaaatTTTT aaaaatcag ctcaaaaatt 120
 ttttccatgt tgttgggcat accactgctg tctctgctt cggtttccca actcgag 177

<210> 1173

<211> 232

<212> DNA

<213> Homo sapiens

<400> 1173

gaattcgcgg ccgcgtcgac gtttggagaa cctgtgtgaa aatccatact ttagcaatct 60
 aaggcaaaac atgaaagacc ttatcctact ttggccaca gtagcttcca gtgtgccgaa 120
 ctttaaacac ttccgatttt accgtagcaa tccagaacag attaatgaaa ttcacaatca 180
 aagtttgcca caggaaattg caaggcactg catggttcag gccagctcg ag 232

<210> 1174

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1174

gaattcgcgg ccgcgtcgac ccagactata tagttcaaag agaattccta tttttcgta 60
 ggtatgcaac aaaaacaatgc agtttgtatt atatcgtatt ttgtattgta ttatatgatg 120
 ggtctcactc tgttaccag tctagagtgc agtggcacga tcacagctca ctgcagcctt 180

gacctgccag.tctcaagcaa tctctctacc tcagcctccc aagtagctga gaccacaggc 240
actcaactcg ag 252

<210> 1175
<211> 464
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (13)..(14)

<400> 1175
gaattcgcg ccmngtcgac gcatatactg ccatgtcaga ttcctactta ccagttact 60
acagtccttc cattggcttc tctatttctt tgggtgaagc tgcttggctt acggggggtg 120
acacagccat gccctactta acttcttatg gacagctgag caacggagag ccccaacttc 180
taccagatgc aatgtttggg caaccaggag ccctaggtag cactccattt cttggtcagc 240
atggttttta tttctttccc agtgggattg acttctcagc atggggaaat aacagttctc 300
agggacagtc tactcagagc tctggatata gtacgaatta tgcttatgca cctagctcct 360
taggtggagc catgattgat ggacagtcag cttttgccaa tgagaccctc aataaggctc 420
ctggcatgaa tactatagac caagggatgg cagcaacact cgag 464

<210> 1176
<211> 170
<212> DNA
<213> Homo sapiens

<400> 1176
gaattcgcg cgcgctcgac ctttgggtat catatcctga atatatgaag ttcattaagc 60
actttctct catctccctt agaaggctct ctttctccca ggggtgggggt ggggaagagc 120
tgacaggaca ccctaagtc atcctgattt tgcagaaacc aaggctcgag 170

<210> 1177
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1177
gaattcgcg cgcgctcgac gtgattgtgt tttttaaaag ataagtaatt tgatgaactg 60
ttcttttgca gtcagaaaaa actcacaaaa agacaaaaaa agttccacag tatttatatt 120
catgtcagtt caggcctaaa atcctttgca aataagatgt ttataggctg gtcacaatta 180
acaatgttat tattggcaac actcgag 207

<210> 1178
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1178
gaattcgcg cgcgctcgac attgaattct agacttgctt ctctctctc ctctaccctc 60
acttctaatt actagggtaca tttctacett gctttcaatt ctaccttgct ggtgttttcc 120
attagtcatt tttttcccat tgtctcttac cacacaactc gag 163

<210> 1179
<211> 313
<212> DNA
<213> Homo sapiens

<400> 1179
gaattcgcg cgcgctcgac caaagatgtg tacaaaaatt tatcttttca gccctcaaat 60

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attgatttttg aacattatatt tgcaaagagt actaagtggt tggtagttg agatagagga 120
atatgcagct tttgactatc tttcctttcc cgtcagacc agctttcatg atacaatttc 180
ctcttatcac tttggtcaag aggtggggca gaaaattttg agttacagta tcattcgaag 240
agaatttatt tctgccttcc atgttatagc ccctaaggga tccaggaccc gaaaggccag 300
cttctccttc gag 313

```

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<210> 1180
<211> 227
<212> DNA
<213> Homo sapiens

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<400> 1180
gaattcgcgg ccgcgtcgac ggcatagata agtttatgga agacctaaaa gatatgctgg 60
gctttgctcc cagcagatct tactactata tggggaata ttttctcct ctaatgctat 120
tatcattgct aatagctagt gttgtgaata tgggattaag tctcctggc tataacgcat 180
ggattgaaga taaggcatct gaagaatttc tgagctatcc actcgag 227

```

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<210> 1181
<211> 253
<212> DNA
<213> Homo sapiens

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<400> 1181
gaattcgcgg ccgcgtcgac atttgccaca aacgctgtta actggactca cacatactat 60
gtgtacctta atgatttatt tactctatgg acagttatta gaacatctgg tatgtggtea 120
cccgctcgga gccaaaggaga ttaggcgctg ggggctgcag tgtcagcctt cccgggagtg 180
cacggtccag ccagggacgg gggtcctctg ggagctgtgc ttcagaagct tactgactga 240
tgaaagcctc gag 253

```

```

<210> 1182
<211> 153
<212> DNA
<213> Homo sapiens

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```

<400> 1182
gaattcgcgg ccgcgtcgac cttctatata actgaaatag ttccttgaac atttgataaa 60
gttttcttta gaaagaaact ggatttggtg cttcattagt aatagttaac tgatcacatg 120
ctaatttttc cctgttctct gtatttactc gag 153

```

```

<210> 1183
<211> 158
<212> DNA
<213> Homo sapiens

```

```

<400> 1183
gaattcgcgg ccgcgtcgac caggcatcca caaaagaaga ccaagctttg tccaaagagg 60
aagagatgga gactgagtca gatgcagagg tagaatgtga cctgagcaat atggaaatca 120
ctgaagagct ccgccagtac tttgcaaagt cgtctgag 158

```

```

<210> 1184
<211> 249
<212> DNA
<213> Homo sapiens

```

```

<400> 1184
gaattcgcgg ccgcgtcgac gtccaagtgc tccattacca tttgttacag gctattcttc 60
tactgaattg cttttgctcc tttgccaaa gtcagataga tgtattttgt tgggttggtt 120
gctgggtttt tgaattcttt tctgttgatc tctgtgtctg ttcctctgtc tataccacac 180
tgtcttggtt actgtagctc tagtgatagg tcttcacatc aagcaagaat gctcactgcc 240
ccctctgag 249

```

<210> 1185
<211> 151
<212> DNA
<213> Homo sapiens

<400> 1185
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctgacctgc ctcgagggtga 60
taacctatc tctaccaaaa aaagaaaaaa aaaaacaaaa aaaaacttag ctagggtgtgg 120
tggcatgcgc ctgtggtccc ggctaactcga g 151

<210> 1186
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1186
gaattcgcgg ccgcgtcgac gtttatttca cagcactgag gaggaccagc atgcattttt 60
ctcttaacac aagtcggaat caacaacctg acactaactt ggctcatggt ggagctcaca 120
gttttgctac agaaaaatatt attgggggat ctgaacaatg ttttgaacag cttcagccag 180
aatattcttc acaggaggag agccagcatg ctgatctacc aagtattttt agcattgaag 240
caagagattc ttccaaggc actcgag 267

<210> 1187
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1187
gaattcgcgg ccgcgtcgac cgatgacgac gaggaggaga agctcacccc agtgaggcca 60
gggggggttcg tggccgtgtt ctgtcccgty aggttttttc ggcagacggg gcagctgtcg 120
tgctgtcca gccagggcac gatgcagcgc tegtggaaac ggtggttgca gggcagctgc 180
cgcacacgct caccacgcgc gtagtcgtcc ttgcacacag ggcactcgag 230

<210> 1188
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1188
gaattcgtgg ccgcgtcgac cttgtagaga gtgacaaggt attgtttgtt tccctatgtg 60
ctgtttgagc agtattttta ccaacttgta ttacagatgt tacagttcca tgtaggaag 120
tcagaaaaga cttgtgtttg tctttgttct gctgatgtgg agtcatgtt ggtgggtct 180
cgag 184

<210> 1189
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1189
gaattcgcgg ccgcgtcgac ggtttagtc, tcaagaagtc ttggctatta aggggcactt 60
atccatacaa cctctacttt ttctaggcac taaaagggg aaaaggctta atagccaaaa 120
tagttatcaa aagaccctaa agctgggggtc ctgtacacca tgaaggatt actttcattc 180
tcatgtaagg gactactcga g 201

<210> 1190
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1190

gaattcgcgg ccgcgtcgac cttggagaac agacttaata tgatccagtc ttcctatttt 60
 tattttatttt tggtagagat ggggggtcttg tctctctgtg ttgcacaccc aggcctcgtct 120
 ccagctcctg gtgtgtccag aattgggtcc tccagtgagg ttcttgggtct cgctgacttt 180
 aagaataaag ccgcgggaccc tcgaagttag tgttacagtt ctctcgag 228

<210> 1191

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1191

gaattcgcgg ccgcgtcgac cgagttgatg gggtccttgg acatatgttt tttcaaaatt 60
 tttgaagcct tttcaaatte tttgtttttg atacaaataa tgacagcagc ttccttgacc 120
 agttttctac tggattcgac cactgcttct gtcagtgtaa attcgtttt aatcatctcc 180
 agcacattga tagctgattc cagtgggtgt agctcagcct ccatatcaaa ggaacagtct 240
 aaattttccc ctctttcaat ccgcgacaga ctcgag 276

<210> 1192

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1192

gaattcgcgg ccgcgtcgac cagaacttta ttttagctct tttttaaaaa tgatttgcac 60
 ggttagaaaa cggcaggagc agccagggga ggggaaggcc tctagggaac tttgcacttt 120
 ctataccttt gtactatgca ctgccctatt gattctacac ccaataatga tattacttga 180
 acccatccac ctcgag 196

<210> 1193

<211> 315

<212> DNA

<213> Homo sapiens

<400> 1193

gaattcgcgg ccgcgtcgac ttctcgatc atttcaaga tgcctaaagc agattttctat 60
 gttctggaaa aaacaggact ttcattcag aactcatctc tgtttccaat actgttacat 120
 tttcatatca tgggaagccat gctgtatgcc ttattaaata aaacttttgc ccaggatggg 180
 cagcatcagg tgctgagcat gaatcgaaat gcagtgggga agcattttga actgatgatt 240
 ggtgactccc ggactagtgg aaaagagcta gtgaagcagt ttctcttcga ttctatacag 300
 aaggcggatc tcgag 315

<210> 1194

<211> 264

<212> DNA

<213> Homo sapiens

<400> 1194

gaattcgcgg ccgcgtcgac ccatcagtga aggaaccatc caaaactgct aaacagaaaa 60
 ggagaactat aattctagga agtggtcaca aaggaaaagc tactattaga attggattgg 120
 ctacaaagaa acctgtaagt agtggcagaa aacactccct tggtaaagaa tattatgcgc 180
 ccgcacctct tccacctggg gtgtctgggt tcttgccgtg gcgtactgca gaacgtgcaa 240
 aaagacacag gggtttccct cgag 264

<210> 1195

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1195

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gaattcgagg ccgcgtcgac gaggatagca ggcgtaaata cctactgtaa tacaatgtca 60
ctgtgtttcc tctgcactgt tcccttccac tctctcatcc tctttgtgac atggaagtcc 120
attgtcatag cttcagcttc agaagctgtt tgtggcattt gtaggattca aactcatgga 180
aaattccctc ctcttccccc cccactcgag 210

```

<210> 1196

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1196

```

gaattcgagg ccgcgtcgac ccccccgcga cctctgtctc caagccaatc aaccagtcac 60
caagtccat caatgctatt gctgaaattt ctcttgaatc catctacttc ttccacgtc 120
cacagccacc atctaccacc cagccttcac ctctcttttc ttgatgatgg catgacctcc 180
taccagttt cccggcaact actcgag 207

```

<210> 1197

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1197

```

gaattcgagg ccgcgtcgac cgcacctac atttaccttc cttatatctc ccccgcttc 60
ctctccatag atctctcccc atttccccct ccatgggtccc catcttcttt ctgaaatgtc 120
tactccttca tgttccctta tgtatgtctt ccaatctttc cttccatagc tctcatcacc 180
ttcatatatt tcttccatct ttctctccc acctgcctcg cctctgtat ataccctcac 240
tctccccctt ttatatcttc tccacactcg ag 272

```

<210> 1198

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1198

```

gaattcgagg ccgcgtcgac cattgagaga gggaggaaag ttttatcatg acagaaatgc 60
tcatactctg aggatataat agagagtga tacttgaggg tagaattaat caaacaactc 120
ttcttgatgc tggatatttt agcctaaagg aaaatataat acatgagttt agcttttaat 180
gtttcaacag cttcactgat tgtccagaag tcattgtgtg cccactttcc tcatgtgttc 240
atctattgcc agtgttcttc gag 263

```

<210> 1199

<211> 343

<212> DNA

<213> Homo sapiens

<400> 1199

```

gaattcgagg ccgcgtcgac ctgcggcggt gaggcgcccc gacagcagct agaggcgtc 60
ctcaacaaga ctatgcgcac tgcacatgaca gatggacgga cactgggtcg ctgcttctc 120
tgcactgacc gtgactgcaa tgtcatcctg ggctcggcgc aggagtctct caagccgtcg 180
ggtcagtgcc cggggaatgc acaccgcct ggtaatgtgg cggaacctta cgcaaggcat 240
ttccccctaa gggcctggct gcaacccttg tttctgggg ctcgttttcg tggctcagag 300
gggcgggaact gattctggcc tactttctcg acactcactc gag 343

```

<210> 1200

<211> 187

<212> DNA

<213> Homo sapiens

<400> 1200

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gaattcgagg ccgcgtcgac ccaagattct gtaggatttt ctgtgcatat agtgtagtaa 60

```

agaagtatca ttcaggggtg aaaaacaaag agcggtttta atgatgttga gtacatttgg 120
 ctgttttata gcctttttct tccctccccc aaagaattct gtttgccctaa ctcccaaaaca 180
 gctcgag 187

<210> 1201

<211> 261

<212> DNA

<213> Homo sapiens

<400> 1201

gaattcgcg cgcgctcgac ctgacctttg aagatatccc tgggaattccc aagcaaggca 60
 atgcaagttc ctccaccttg ctccaaggta ctgggaatgg cggtccctgcc actcaccctc 120
 acctttttgtc tggctcctct tgcctctctc ctgccttcca tctggggccc aacaccagcc 180
 agctgtgtag tctggccctt gctgactatt ctgctgtgc cgcctcaggc ctccacctca 240
 accgatacag cgcctctcga g 261

<210> 1202

<211> 280

<212> DNA

<213> Homo sapiens

<400> 1202

gaattcgcg cgcgctcgac cttgatccag cctgggtaac aaagcaagag cctgtctaaa 60
 aaaaaaaaaa agccagggtta tttttgttct ttttgttttg tttttccctt tctcagttac 120
 tcattccttt tagattgaag gattgatgca tttatttatt tatttattct ttaccaagc 180
 ctcatgtact ttatgttttg agaagaggat tctgctaaat tcttgggatt attcagaggc 240
 ttatacacca acaaaagaaa aagaaagcca acaactcgag 280

<210> 1203

<211> 155

<212> DNA

<213> Homo sapiens

<400> 1203

gaattcgcg cgcgctcgac aaaaaaaaaa agaagtactt cacattactg tcatcaaaaag 60
 tagattccac caccagagta tttgcaactt ggaatccagg ctgctaataa ttgttttggg 120
 aggaaagcat gatagtgtta ggattcgac tcgag 155

<210> 1204

<211> 307

<212> DNA

<213> Homo sapiens

<400> 1204

gaattcgcg cgcgctcgac gttttgttat ataggtaaatt ctgtgcgcgc gtgggtttgct 60
 gcccctatca acccatcagc taggtattaa tctgccatct tttaaagctc actttaactt 120
 ccacttttcc atgaagtttt tctgtatcct cctcctcctt ccattcctgga aatccttgc 180
 agtttgttct gcagcatcac acctagtgtc tagccatccc tactttgtcc ctacactttt 240
 tgaattgctt accaacaact tagagaggga gctagagatt gttgctggcc attgctccaa 300
 actcgag 307

<210> 1205

<211> 586

<212> DNA

<213> Homo sapiens

<400> 1205

gaattcgcg cgcgctcgac agagaaatga aacggaagag aaaaaaagga gttttctgcc 60
 ttcagagaga gctcaactgc ctgtgtgttg ctccagctcc cttccctgtt caaaaaagt 120
 caaagtcac acctcaact caaatctatt tttaaataag aaagaaggcc agtgaagagg 180

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ggcaggcaag atgtggccaa ggaaggcatt ggggaaaagg taacatttgt actgggagtt 240
tggtagatga agaaggtaag aaggagaagt acagacagtt aaagatggca ttgaaattcc 300
agagtcccccag aggaggagtt tgcaggggaca gcagggtggca cttgatgagt tagaatttca 360
gatgtgatga gtttgaagca cctgggagggc atctaagtag acatgattac cagacacctg 420
gagctgaata agaggtcctg gagataatga tttagaggtg attgttctct catccatgta 480
tccattcatt caccaggga agggaatgt gtacagtacc tactctaggc aggccctatg 540
ctggatattg ggaatacaat gatgaacaaa acagatgccg ctcgag 586

```

<210> 1206

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1206

```

gaattcgcgg ccgcgtcgac gcctcgatca ctgcatttgc acagggtgaa gtctgtgtgc 60
ggcaagtgtg tgagggcctt cagcaggatc tgggcggtga ccgtgggtctg aaagaaggct 120
gggttgaaat ggtacagctt caggacagcc aggttggtct ccagatcata ggcattttcc 180
ttggcctcgg tctctacata gcgtccagg gtggccaggt tctcaggatt gtacctgtcg 240
ataccctcgt cgattgaatt ctgacctgc ctcgag 276

```

<210> 1207

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1207

```

gaattcgcgg ccgcgtcgac attgtgttag cctgttccct gagctctctt cgtgatcaag 60
aagactgac agataaatca agagacttgc ccaaaattac ctaggaaatc tgtagcagca 120
gcagaaccaa actccggtcc ttgctaaatc tagataccag gctagctttt ctatggacgc 180
agaattaacc catacaaatg tacaagctta tcctcgag 218

```

<210> 1208

<211> 398

<212> DNA

<213> Homo sapiens

<400> 1208

```

gaattcgcgg ccgcgtcgac ccgagcctca gttgtcttct ctgtgaggtg ggaatgccgg 60
tgaatcctgc cgctggcgtg gatgagaagt gaatgcgtgc tcggagctgc gactgacagc 120
gggcaggagg cggccaggga cacttggttt ctccagggtt ggaaggett ctagaaggttc 180
ccatcaagg gaagtgtggc tgggggcgcc gtctacctgg tgtacgacca ggagctgtcg 240
gggcccagcg acaagagcca ggcagcccta cagaaggctg gggagggtgg cccccccgcc 300
atgtaccagt tcagccagta cgtgtgtcag cagacaggcc tgcagatacc ccagctccca 360
gcccctccaa agatttactt tcccatccat cactcgag 398

```

<210> 1209

<211> 456

<212> DNA

<213> Homo sapiens

<400> 1209

```

gaattcgcgg ccgcgtcgac agaagggtac actcccatga gggcctgctt tgcttatgca 60
tgtgtgtgca catgcatgta aaccagggac ctccagctca cggcctccag gcctgggcca 120
gttcttgctg ctccctgcgt ctcccccagc tggctgtgtc ctgagtaact ggaacatgag 180
actgtatctg caggactggc cccatggtgg ccgagtcaga agtctgtttc ctgtgagtcg 240
ccaccgttca ctcagtcttg ccctcccatg ctttgagacc agtctggtgg ctctgttaag 300
gttctcaagg ctgggtggcag ctcagtctgg ggtcaggaca tgtcgggttc atgcgtttct 360
ggccctgaca taagctgtct ggcctctctg tgacatgatg aaattgaaat caatccacag 420
tccatgaaat tgtgacactc caccagatat ctcgag 456

```

<210> 1210
 <211> 408
 <212> DNA
 <213> Homo sapiens

<400> 1210
 gctcgagggtc catatggata atcttcaagg gtaaattcac tgagatgaac tgcaaaactcc 60
 cctttccaca tgcagcagca ggacatacat gtccctgatgg gtttgtgtaa ccctgccaga 120
 atggctgggca ggacaagtta actatcattc ccttcacaaa tcagtcagtc aggaaatccc 180
 tacgtgggaa ggatcacagg gcctacaaaag aggcagtgac agcaaaaactt cagctgctat 240
 tgaatctgaa tgcatttctg gttttttaac cagatcccca gcaagtaatt ttaacagccc 300
 gtaaatgtag agtatgctag actatgagga cacagatgcc cagcccagtg tggggggtaa 360
 gttctacact gcactgtcct tccacagggc ccctcagggt cactcgag 408

<210> 1211
 <211> 389
 <212> DNA
 <213> Homo sapiens

<400> 1211
 gaattcgagg ccgcgtcgac attacaatta teatgctcac acttaatagt atattctatg 60
 tcctcttggc tgtctatctt gatcaagtca ttccagggga atttggctta cggagatcat 120
 ctttatattt tctgaagcc tcatattggg caaagagcaa aagaaattat gaggagtat 180
 cagagggcaa tgttaattga aatattagtt ttagtgaat tattgagcca gtttcttcag 240
 aattttagg aaaagaagcc ataagaatta gtggtattca gaagacatac agaaagaagg 300
 gtgaaaatgt ggaggctttg agaaatttgc catttgacat atatgagggt cagattactg 360
 ccttacttgg ccacagtga acactcgag 389

<210> 1212
 <211> 402
 <212> DNA
 <213> Homo sapiens

<400> 1212
 gaattcgagg ccgcgtcgac ccgcctcag cctccgaaag tgctgggagt acagggtgta 60
 gccactgcgc ctggcctcat tgtactcctt aacacaagaa gacttcaaca atgataagta 120
 gttgtttata aggaagcagg atcattacca aaataaatcc tgctaaaaca acaggaatca 180
 tgttttaaaag cctagtttgc taatttttgc tagtaggata agagtgatcg taatatctcg 240
 aacattacat agacacctaa aacctttagt tgtatttcat caaaaatctg ttcatacccc 300
 acgttgggtt caaaacatac tatgcttttt ctccgtgtta ttccctatat tcatttttgt 360
 gtgtatgtgt atgtcacaaa tattgatatg cctgggctcg ag 402

<210> 1213
 <211> 168
 <212> DNA
 <213> Homo sapiens

<400> 1213
 gaattcgagg ccgcgtcgac gagtgtgatg ggcgtgttct ggggcttcgt cggcttcttg 60
 gtgccttggg tcatccctaa gggcctaac cggggagtta tcattaccat gttggtgacc 120
 tgttcagttt gctgctatct cttttggctg attgcagcaa acctcgag 168

<210> 1214
 <211> 180
 <212> DNA
 <213> Homo sapiens

<400> 1214
 gaattcgagg ccgcgtcgac caaaaaagtc cttttgaaaa agttgatgat gatgattttt 60
 acatcagaga atatctttag atcacgttta agagatgatt actgggtgta tgttagatag 120

caagtactgt ggatgggttta aggggtgaata ggaaatatct agatgttaag gggctctcgag 180

<210> 1215

<211> 506

<212> DNA

<213> Homo sapiens

<400> 1215

gaattcgcgg ccgcgtcgac cagcaatccc tccctagggtc aatcgctccc aaacccttaa 60
ccatgagact ccccatgaac cagattgtca catcagtcac cattgcagcc aacatgccct 120
cgaacattgg ggctccactg ataagctcca tgggaacgac catgggttggc tcagcacccct 180
ccacccaagt gagtccttcg gtgcaaatcc agcagcagat gcagcagcag catttccagc 240
accacatgca gcagcacctg cagcagcagc agcagcatct ccagcagcaa attaatcaac 300
agcagctgca gcagcagctg cagcagcggc tccagctgca gcagctgcaa cacatgcagc 360
accagtctca gccttctcct cggcagcact cccctgtcgc ctctcagata acatccccc 420
tccctgccat cgggagcccc cagccagcct ctccagcagca ccagtcgcaa atacagtctc 480
agacacagac tcaagaatta ctcgag 506

<210> 1216

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1216

gaattcgcgg ccgcgtcgac gtaatttact aagggttgaa atgggtattct aacagttagt 60
ccattgtctt gaggattaat ctgatttata agtaatactg atagacatat ttctgtacat 120
ctgagcagaa ataaatgcat gtttctagca tatgtaatat aaaaactctc gag 173

<210> 1217

<211> 287

<212> DNA

<213> Homo sapiens

<400> 1217

gaattcgcgg ccgcgtcgac gaacggtaat tacattgaga tttttaaaaa tataataaatg 60
cttaaaatta cagaagtaat aaaaagaatg gtttttagaca aatcttatgg aaagtttttt 120
attttattct ttataatta tatttatgga tatttgtctt tattagtgtg gtaatatatt 180
ttataacgct cataatttga actttcaggc taatgtacta taaatatttg tattacgcat 240
tactaccatc ccaaatgtac caaaacacgt ttagagagaa cctcgag 287

<210> 1218

<211> 327

<212> DNA

<213> Homo sapiens

<400> 1218

gaattcgcgg ccgcgtcgac cgatcttcat gaatgcaata tttatgatgt gaaaaatgac 60
acaggattcc aggaaggcta tccctacccc tatccccata cctgttactt actggacaaa 120
gccaaatttac gaccacaccg ccttcaacca gatcagctgc gggccaagat gatcctgttt 180
gcttttggca gtgccttggc tcaggcccggt ctcctctatg ggaatgatgc caaggtcttg 240
gagcagcccg tgggtggtgca gagcgtgggc acggatggac gtgtcttcca tttcctagtg 300
tttcaactga atatcacaga cctcgag 327

<210> 1219

<211> 335

<212> DNA

<213> Homo sapiens

<400> 1219

gaattcgcgg ccgcgtcgac ccttgagggtg attcatcttc caggctctcc ttccatcaag 60

```

tctctcctcc ctagecgtct gggtccttaa cggcagcagc cggcgtacc aagatccttc 120
tgtgcctccc gcttctgctc ctgctgtccg gctgggtccc ggctgggcca gccgaccttc 180
actctctttg ctatgacatc accgtcatcc ctaagttcag acctggacca cgggtggtgtg 240
cggttcaagg ccagggtgat gaaaagactt ttcttacta tgactgtggc aacaagacag 300
tcacacctgt cagtcacctg gagaagaaac tcgag 335

```

<210> 1220

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1220

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gaattcgcgg ccgcgtcgac cttgatttat aactaaaata tttaaacata cgggtgtgctg 60
gattccattt gtactcttac ccaggggctg caaatgttag gagctggcct gaccaaggga 120
ataaagatta cgaaaatggt cactttattt tttttattt tttttgagaca 180
gcgtctcgct ctgtcgcca ggctggaaag cagtggcaca atctcgag 228

```

<210> 1221

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1221

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gaattcgcgg ccgcgtcgac gtggtttaag aaaaaaacac ataaacaagt tcagacaact 60
gattgtatga ttctgggaat tctttgcttt cctttccttc tccctcggca ccacctcttc 120
tccccaggcc tccctgtcgg gcatggggag gaggttgag ctcagcatct tgaggaaatg 180
gtcaagacag cccctccgct ccgcgtcgca cggccagccg cctttgtccg ggaggacaga 240
cagaaacgca gcaaggcaca cactctcgag 270

```

<210> 1222

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1222

```

gaattcgcgg ccgcgtcgac catcagcccc ccaagatggc gatgcaagcg gccaaagagg 60
cgaacattcg acttccacct gaagtaaata ggatattgta tataagaaat ttgccatata 120
aaatcacagc tgaagaaatg tatgatatat ttgggaaata tggacctatt cgtcaaatca 180
gagtggggaa cacaccaaca actcgag 207

```

<210> 1223

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1223

```

gaattcgcgg ccgcgtcgac ctccctgagc ccactgggtc atatgcgtgt caccacacgt 60
gaactagtgt ggtggctgcc tgcggacacc ctctgttct gagccctggg cctgtgttct 120
tctcagacac tcccagactg aggggtggtg tgtggcgggt ggcagggtg ctgtggagac 180
tggtgatctg gagcctggtg ctggcacctg gcctgagttt ccgtgggcag ctggcgggga 240
cctgtgctgc tgcgtctgac tgtgggtggg cgggcggcgc ctgggagtg ctcttgctca 300
ggaattgata ggaacctaa cgactaggat acccccagac tcgag 345

```

<210> 1224

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1224

```

gaattcgcgg ccgcgtcgac gctgattgag cctcttagat ctgtaggta atatttttca 60

```

tcaaatttgg aaaatgcttg gccactatatt attcaaaatt tetgccccag tctctctcct 120
 ctgcttctgg gactccagtt atatacgtaa gaacactgaa tgttgtctac aggtcgtgga 180
 ggcttctgtac tcccatccac tcgag 205

<210> 1225
 <211> 534
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (171)

<220>
 <221> unsure
 <222> (173)

<220>
 <221> unsure
 <222> (175)

<400> 1225
 gaattcgcgg cgcgctcgac gactcctgtg aggatgcagc actccctggc aggtcagacc 60
 tatgcctgac cctcatcca gccagacctg cggtagaggg aggccgtcca gcagatggca 120
 gatgccctgc agtacctgca gaaggtctct ggagacatct tcagcaggtg ntntnccagt 180
 gccaaagtacc ctgtccaga ggcctgcag gaatatggct ccattctcac gggcgcccag 240
 gaccttggtc tgcagagacg cccccgccac aggatccaga gcaagcaccg cccctggac 300
 gagcgggccc tgcaggtccc tgagaactac ttctatgtgc cagacctggg ccaggtgcct 360
 gagattgatg ttccatccta cctgcctgac ctgcccgga ttgccaaaga cctcatgtac 420
 attgccgacc tgggccccgg cattgcccc tctgccccg gcaccattcc agaactgcc 480
 accttcaca ctgaggtagc cgagcctctc aagacctaca aaatggggct cgag 534

<210> 1226
 <211> 284
 <212> DNA
 <213> Homo sapiens

<400> 1226
 gaattcgcgg cgcgctcgac cctaatacag acgtaattac ctgttattaa aatattagga 60
 aaatgaacat aagaaaaacg ttgagatcac tctcactctt gatgttgggc gtgggagggg 120
 tgccagcgt cattccttgg ccggctccct tgcctccgtg gaggaggggt gactccacc 180
 acctccccgg cgtgggtctc ttgagttct cccggtttcc ccattcggaa cctcactgtg 240
 atggaggctg tctctgcaag aagcatttcc tggttctccc tata 284

<210> 1227
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 1227
 gaattcgcgg cgcgctcgac gtgcgtgctc cttggtttgt tccacctgcc tctcgcac 60
 ttcaatggca ctctccact gccttgccag ggtcccatat tcccggtgtt tctcctecag 120
 ccgcagctgg gactgggtga ttgcctctc cctcttggca atcacctgta ggaactcgat 180
 attctgggca ctggctgcct ccagtttct ctccagttca tccaccttcg ctcgag 236

<210> 1228
 <211> 161
 <212> DNA
 <213> Homo sapiens

<400> 1228

gaattcgcg cgcgctcgac atttttggtg caagcctggg tegtcttttc tatgcacatg 60
 gggcagctat tttagaaaca cttggagtgc tttgtatgta gtcccgcac ccattctttt 120
 catttgacat cactgtgtgg gaatttccac aacatctcga g 161

<210> 1229

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1229

gaattcgcg cgcgctcgac gaaaaataat tagtggtata gtcttaagat ttgttttcta 60
 aagttgatac tgggggttat ttttgtgaac agcctgatgt ttgggacctt ttttctcaa 120
 aataaacaag tccttattaa accaggaatt tggagaaaaa aaaaaccctg gttttttatt 180
 tttgtatttt attattgttt acttcaaact ttgttttaca gcgtccccc gctcgag 237

<210> 1230

<211> 153

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (7)

<220>

<221> unsure

<222> (14)

<220>

<221> unsure

<222> (104)

<400> 1230

gaattcncgg ccgngtcgac ccaagatccc agtcacaatt atcaccgggt atttaggtgc 60
 tgggaagaca acacttctga actatatttt gacagagcaa catngtaaaa gagtagcggt 120
 catttttaaat gaatctgggg aaggcaactc gag 153

<210> 1231

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1231

gaattcgcg cgcgctcgac atttgaatac catattattt ctttctattt gggtaatgat 60
 cgggttaata ggatttctta cttacatagt aggtgtggaa aaggtgggtt ttacttattt 120
 attttttttt agacagtctt actctgtcac tcaggtcggg gtacagtggc gtgacctcag 180
 ctcaetgcaa cctccacctc ccgggttcaa gctcgag 217

<210> 1232

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1232

gaattcgcg cgcgctcgac cggaatctcc tctgtgaatt ccacctgcct agttctcccc 60
 tttcatcttc tctctcttc cactcatca aagaggaaaa gctctttgtt caaaagggaag 120
 agaaaaagta aagcatctta ttttcttta aaagaatttt aaacctgaa aaagatattt 180
 ttaaagaaat tcacgctcga g 201

<210> 1233
 <211> 160
 <212> DNA
 <213> Homo sapiens

<400> 1233
 gaattcggcc aaagaggcct agagcttagt gtgtaaaatg ttgaggctct tegttaggt 60
 cttttctctg acagggacaa gactgtcgtt tcagcagctg caccggaagg ttggtgatct 120
 tcatctcgag gcaggtctag aattcgaggt tctccctata 160

<210> 1234
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 1234
 gaattcggcc aaagaggcct acttttggtc catgtaagtg ctacccttg ctgggggagg 60
 agtcatggtt tatttggaaa tgtcagttgc aatcatggtt ctgtcatttg actgcacagt 120
 atcagaggag cctgtttaacc tctctgtgcc ttagtttctt agcccatgaa agagatcatt 180
 gcctgaccda gggactacct caagggcttt tgatgaggac aagtgcacagt aggaagatgc 240
 aagagccttt agtaccgaag ttctcaacac tgactacatg ctggaatgac tgtgaagctt 300
 ttaaaaaatg ttagtgccca cttcctcgag 330

<210> 1235
 <211> 493
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (15)

<220>
 <221> unsure
 <222> (107)

<400> 1235
 gaattcggcc aaagnggcct agttgaagac gacaccacgg ctttgatgga atatcagata 60
 ttgaaaatgt ctctctgcct gttcatcctt ctgtttctca cacttgncta ttttatgcat 120
 ttgtcctctc caatgtatat gcacagagag gcacaggcat gtggactgtt caggcagaaa 180
 cttgtctaca ttaccatctg gactgcaaga gaattattata catttaaacc tgtcttataa 240
 ccactttact gatctgcata accagttaac ccaatatacc aatctgagga cctggacat 300
 ttcaacaac aggtctgaaa gcctgcctgc tcacttacct cgttctctgt ggaacatgtc 360
 tgctgctaac aacaacatta aacttcttga caaatctgat actgcttata agtggaaatct 420
 taaatatctg gatgtttcta agaacatgct ggaagaggtt gtcctcatta aaatacact 480
 aagaagtctc gag 493

<210> 1236
 <211> 381
 <212> DNA
 <213> Homo sapiens

<400> 1236
 gaattcggcc aaagaggcct agataaatct tcatcatggg ggctctcctg tgtattgcag 60
 gatagaataa agagtctgac tctgtttttt atcattgacc accgacaacg ttccagtccc 120
 accaccctct atttccctct tgcctctcat ctgtgcaagc cttaactaag aaagcttgaa 180
 ccattctctc cttggctcca gggggaagtt caaaccaagc aaacacaggt ccatgggtgg 240
 gaatcttcac cctagctcac ttctaacca taataaaaac ccaagccaca ttcagactga 300
 cttgggtctc tgccttgcac tctccagaaa gccttattat gtgagtaata aacctttgca 360
 taccctctgg ttctccctat a 381

<210> 1237
 <211> 575
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (143)

<220>
 <221> unsure
 <222> (440)

<400> 1237
 gaattcggcc aaagaggcct agggcttgaa ttattttaatt tgatccattt atttaattaa 60
 aaaaaaaagg aaggggaaag aaatcatggc caaaaaaata ttattttaacc cccaccccccac 120
 ccccaaagct ctagccattc atntgagcat caccacacac ccactcattg cctgatattc 180
 ggatgggtggc atactctgcc ccaggaaaac tgcctgaagg cacggggggca atgggtgcca 240
 attttagctc tcagcagggt agtcaaccag acaaactggg gggctaaagt ccagaaattc 300
 tttccagggt tttctgctcat tggctgagca catacaaact gtcataagcc tgtaaaattt 360
 aaggggagtt ggggtggggc gtaagagcaa aaggacagca ggagaagaga aattacgggt 420
 cccccaagtt tttcctgggn tagtggctct ggatatagat ttaaagagag gtcagagtaa 480
 atggactcca ggtttcttat caaagaaaac tatccctcaa tgaggagctg agatgtgcca 540
 tgcaagagag ttcttacctg caggttctcc ctata 575

<210> 1238
 <211> 454
 <212> DNA
 <213> Homo sapiens

<400> 1238
 gaattcggcc ttcattggcct aatcttgggt cactaattaa ggtcttctt tctagaacca 60
 aagaactaaa actttcagca gaatgtcaga accacatctt catttggcag acacacaatg 120
 ctttgtttat tatttgctgt ttgctgaaag tgttcattct tcagatgtca gaggaggaat 180
 tacaacttca ttttacttat gaagaaaaat ctctggcga ttacagttct gactcagaag 240
 atcttttggg agaattgctg tgcgtgttga tgcagttgat cactgatatt ccactcttag 300
 atattacata tgaaatatca gtagaagcta tatcaacaat ggttgttttc ctttctgccc 360
 aactcttcca caaagaagtt ttgcgacaga gcatcagcca caagtatttg atgcgaggtc 420
 catgtcttcc atacaccagc aatttctccc tata 454

<210> 1239
 <211> 356
 <212> DNA
 <213> Homo sapiens

<400> 1239
 gaattcggcc aaagaggcct acagacggcg acagtggcgg cggcgccatg gcagggttg 60
 caggatccct gctgccttgg tgatcccggg ctgacagcca gagagcacag cggtcagct 120
 cctggagagt gagggttgaa gaaagcggag ggcagccgcc tgcgcccgtt ggctccatt 180
 aggtcgggtt ctgcagcggg gcccggcagc cttgggtgaag gccctgcccg gcagagatca 240
 tgtattgcct ccagtggctg ctgcccgtcc tctcatccc caagccccct aacccccccc 300
 tgtgggtcag ccactccatg ttcattgggt tctacctgct caacgttctc cctata 356

<210> 1240
 <211> 419
 <212> DNA
 <213> Homo sapiens

<400> 1240
 gaattcggcc aaagaggcct acctggcccc tgtgggtggag ggctggaacc ggcattgaggc 60

tgagcggaca gaggttctca ggggaacttca agaggaacac caggcagcag agctcaccag 120
aagcaagcag caggagacag taaccgcctt ggaacaaagc ctttctgagg ccatggaggc 180
cctgaatcgt gagcaggaag gtgccagact gcagcaacgg gaaagagaga cactggagga 240
ggaaaggcaa gctctgactc tgaggttgga ggcagaacag cagcgggtgct gtgtcctgca 300
ggaagagcgg gatgcagctc gggctgggca actgagtgag catcgagagt tggagactct 360
tcgggctgcc ctagaagaag aacgacaaac gctcgaggca ggtctagggt ctcctata 419

<210> 1241
<211> 696
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (16)

<220>
<221> unsure
<222> (18)

<220>
<221> unsure
<222> (108)

<220>
<221> unsure
<222> (112)

<220>
<221> unsure
<222> (133)

<400> 1241
gaattcggcc aaagantnct aaagaaagct agtatttgta gttatcctat tctaaaaaac 60
tactattcaa ctaagacaac taagaaaaat atattccaat aaaaaatnta anattacatt 120
atgagggtga acntgactat ttaaacatc tgtactttaa ttaattaatt aagaaccac 180
attagtaaaa aaaattttta aatccagatt agtattaggc ctcttttaga atttgtctag 240
caggttttcc agtttccacc agaaaaccat aaaaatactt atctattggg ttatcctgct 300
agacaaaaat cttagaagc tctaaccatta atctagagtt tttaaaaggc caaattgtag 360
aatctaaaga gcaggatatc gaatatgtct tctattcatg tgaatggcag gtgtgtatgg 420
caaacttttc tcttctccag gtgttttgc ctgatcaacc cttgttttcc ttatgggtcaa 480
atcagcatct tcagcaggca ctctgcacag aatcattggt ttcagaacat gatgccctgt 540
ttattcaaaa gaagagtctc attcagagaa acactaataa ttttggctaa atagctaata 600
ataattaact taaaaatatt tagttgtgac ttttatttaa acattaaaaa agagttaaag 660
caacatatga atatggtaaa aaatgttctc cctata 696

<210> 1242
<211> 247
<212> DNA
<213> Homo sapiens

<400> 1242
gaagctatca atttggatac cagtctggta tctgctctac ctcccttcac tcacaactga 60
cttggaaacca ataaaggagg gagtgcgat gcctatcttc cctctcaagt ttctccagac 120
tttactgcag cagcatgtgt cgctcctggc cctgctgtgc catccctctg cctcctcacc 180
acatctctca ctcatagact cagggcttcc ctctggctag tactcccatg actccatgca 240
cctcgag 247

<210> 1243
<211> 349

<212> DNA

<213> Homo sapiens

<400> 1243

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ggaatgtaag ctctatgagg gcaaggactc ttgtcttggt tactgctgtg ttcttctagc 60
ataaacacac acaccccccctt agaacaattc tggatacaca atagaaattc agcaaattgtt 120
tgggtgaatg aaatggccctt aaaatactat tttaaaactt gttttctttc cagggtatat 180
tttcttattt aatgtgtgta aaaatgtggt ggtatgaagt tttttggttt taaaaccttc 240
aatagtgagt ttttgtgggc acattgtatt cataagagct gttaattcta gccataactt 300
taaataaatg tattggttgc ttgtgtacat gactatctgt aaactcgag 349

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<210> 1244

<211> 251

<212> DNA

<213> Homo sapiens

<400> 1244

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ggagccacc gagaggcgcc tgcaggatga aagctctctg tctcctctc ctcctctgccc 60
tggggctggt ggtgtctagc aagaccctgt gctccatgga agaagccatc aatgagagga 120
tccaggaggt cgccggctcc ctaatattta gggcaataag cagcattggc ctggagtgcc 180
agagcgtcac ctccaggggg gacctggcta cttgcccccg aggcttcgcc gtcaccgggt 240
gcaaactcga g 251

```

<210> 1245

<211> 528

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (89)

<400> 1245

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gcttggccat ggtcgcttcc ttttttccaa tctctgtggc agtttttgcc ctaataaccc 60
tgcagggttg tactcaggac agtttttatng ctgcagtgtg tgaacatgct gtcattttgc 120
caaataagaa cagaaacacc agttttctcag gaggatgcct tgaatctcat gaacgagaat 180
atagacattc tggagacagc gatcaagcag gcagctgagc aggggtgctcg aatcattgtg 240
actccagaag atgcacttta tggatggaaa ttaccagggt aaactgtttt ccttatctg 300
gaggatatcc cagaccctca ggtgaactgg attccgtgtc aagaccccca cagatttggt 360
cacacaccag tacaagcaag actcagctgc ctggccaagg acaactctat ctatgtcttg 420
gcaaatttgg gggacaaaaa gccatgtaat tccgtgact ccacatgtcc tccataatggc 480
tactttcaat acaataccaa tgtggtgtat aatacagtat tcctcgag 528

```

<210> 1246

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1246

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gcaagaacat gaaacatctg tggttcgtcc ttctcctggt ggcagctccc agatgggtcc 60
tgtcccgagt gcagctgcag gagtccggcc caggactggt gaggccttcg gagaccctgt 120
ccctcacctg cgctgtctct ggtgacccca tcagttctta ttcttgagc tggatccggc 180
aggccccagg gaagggaactg gagtggattg gcactatcta taccactggg aatatcaacc 240
acaatccctc cctcgag 257

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<210> 1247

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1247

gaattcgcgg ccgcgtcgac gtaagcaata tttagtttaa aggcatttac aagtcataata 60
acttaatcat tttaaatgaa tgggtggaac acaagcagct tttctttttt ttttaattta 120
ttctgttta gtatttctga ttacgtaaca ggaagtctcg ag 162

<210> 1248

<211> 234

<212> DNA

<213> Homo sapiens

<400> 1248

gaattcgcgg ccgcgtcgac ccagcatttt gtccctttct atttcaccgc tgctcagtaa 60
caacctacac ttcacttttt gatgccattg teattcactc attcattcat tatttgctca 120
ttcattttgt tcaacaatga aaccaatgct caagcagatg gaggtggctg ggtgcagtgg 180
ctcacacctg taatcccaac cctttgggag ggcgaggtgg gcagatcact cgag 234

<210> 1249

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1249

gaattcgcgg ccgcgtcgac tttccctttt atgtgtaac ctttgttttc ccggagtcac 60
tacgtcttag tgtcttgttt gctcagtttc ctatgtatct atcacaaatt cagcccagac 120
cctgatagaa gtgtgaatct caacacattc ctcgag 156

<210> 1250

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1250

gaattcgcgg ccgcgtcgac agaacagtcg gtttaccaag gaaggccatt atctttgact 60
tgcaaagctt ttacagccaa acattgtttg cttacagttc ttttaatacaa atgaagacct 120
taatggtaag aagagtccta ttactactcc ctttgtacat ggaggtcacc ccaataaaga 180
aaggacgatg tcacgctctc gag 203

<210> 1251

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1251

gaattcgcgg ccgcgtcgac gagaactgct gctttgtctt cctgtgttag tgagaccagt 60
tgtgtgttat cagatagtct agactttcaa cagcagttat aagtgccccg gttttctcct 120
tactggttat tccttagagt ctaaggtggg gtattaataa atgaggtggc tcgag 175

<210> 1252

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1252

gaattcgcgg ccgcgtcgac cctcgattga attctagacc tgcctcatcc cagcctttgt 60
tttattatca tccattttac atcatcatat gcgataaacc ccaaaatgca ttgtcactac 120
ttactcgag 129

<210> 1253

<211> 178

<212> DNA

<213> Homo sapiens

<400> 1253

gaattcgcgg ccgcgtcgac aaaaaagaga aactacttta ttgatgtttt ttcctcctga 60
gcccctgctg gtcttattga atgtgtcacc ttgtattata attgttttta tttgtcactg 120
ttgtcatact gcctactctt taccctcttc ccacatacat acacaaatgc tactcgag 178

<210> 1254

<211> 456

<212> DNA

<213> Homo sapiens

<400> 1254

gaattcgcgg ccgcgtcgac gcttcggcga tgggctcgtc actcgggtcg taatactgct 60
ccagggggca gttacaggaa ggtaaccatt tacagccaga aaagggttaa tatactcttt 120
tcattgtttt cagaaaatgt ataaaggctc aatttgtaac agcaagggtt tcaaattaaag 180
acaattcgta tagagtagca attgctgcac gaagtaaagt cttttttttt tttttttaac 240
atttgtcatt taagaaggct gccctgcggg attcataatt cattgtttac cacaagggtg 300
gttcataaat ttaagcttta aaaacgatct gtaagttgat actttggctc tttggagctt 360
atttcattaa gaaattttcc ttgattgacc tcagggcagc tggggcactc caaggggcta 420
tggcgataaa aagctcaatt ggtaaagaca ctcgag 456

<210> 1255

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1255

gaattcgcgg ccgcgtcgac gtgcctctaa aattaaatat ttgggatctt ttgattagct 60
ctggatgcat caaataagca taactaaact attctttttt tgtttgttt tgagacggag 120
tcttgctcag tcgcccgggc tgaagtgcct cagctttctg agtacctgtg actacatgtg 180
tgcaccacea tgcccagttc tcgag 205

<210> 1256

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1256

gaattcgcgg ccgcgtcgac ggaatctagt tgcctaagga taaactgagt ttgacttcat 60
tagtgacaaa atgataggct tgcgtagagt tattatagca ttaatcaatt tgatggattg 120
gaaatatgac agaactgaag cagcatgtaa tattagtgc tattattctg gaaattatgt 180
cttcacctac attcatgtgg cagaggagtc atgttgtaaa tcaagaaggc agaacttaaa 240
gaaacaaaca acagagggca tcttactcga g 271

<210> 1257

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1257

gaattcgcgg ccgcgtcgac cttacatttg cttagggttt tcccaagatt cataggcctc 60
ttgtctttat gcatctaata atatcatcca ctgctacaac ttttaaccato ttttcaaac 120
tgatgattct cctctgtctc tgccttttca gtactgtttt tctctgaac tccagaccca 180
tatctcttgc tgcttgcaag cagtttttcc tgaatccctc tgactccaca actggtccac 240
tcgag 245

<210> 1258

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1258

gaattcgcg cgcgctcgac caccatccta ctggagaaag catactttta tgctaagatc 60
ttacttttaag ctgttttatgt gaacaaaaga tgtacatata gtaagtatta cttccgtagt 120
cctcaaattt actataaactt ttgtacttag tatatgtttt atatttggaa aacagcacta 180
cgcttagttt tcctgtagtt cctgagtgat gctcgag 217

<210> 1259

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1259

gaattcgcg cgcgctcgac atttctgctc attgtttcca ttctgcaccc cttttttct 60
gtttttttcc tgagattatt aggaatgttt tatcataggg tattattaat tttctcttta 120
gtggcctctt tatcacattg tcacattatc ctcgag 156

<210> 1260

<211> 432

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (22)

<220>

<221> unsure

<222> (24)

<400> 1260

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cagccgctac tggaaacctc acctcgactc cagcggcccc gacagcacgg aagcagctgg 120
ataaagaaca ggtagaaaag gcagtgagcg ctctcttgac gcattgcaag tccaggaaaa 180
acaattatgg gttgcttttg aatgagaatg aaagtttatt tttaatggtg gtattatgga 240
aaattccaag taaagaactg agggtcagat tgaccttgcc tcatagtatt cgatcagatt 300
cagaagatat ctgtttattt acgaaggatg aacccaattc aactcctgaa aagacagaa 360
agttttatag aaagctttta aacaagcatg gaattaaaac cgtttctcag attatctccc 420
tccaaactcg ag 432

<210> 1261

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1261

gaattcgcg cgcgctcgac ggtaagtgc tttggaaagt ggaatagagt aagggggatt 60
cagaattgtt gaggatagag gttgcaattt aaagtgggt atactgggtg gagtatcctt 120
gagagagtga tatttaggaa aaatttaacg gagaagtaac catgttaata actggggcag 180
ttctcgag 188

<210> 1262

<211> 161

<212> DNA

<213> Homo sapiens

<400> 1262

gaattcgcg cgcgctcgac ttaaagttta agtgatacta aattaagtca ctgttccctt 60
gtttaaact gttcagtgct ttccatttca ttgagaataa aattgaagct cttttcatgg 120

tctctaatat tctacataga cttacccttg tataccctga g 161

<210> 1263
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1263
gaattcgcg cgcgctcgac aaataaccct tcaacaagtt aaattgcctc taggatttgc 60
tttctccaga ttaaattatc ccaaagtctt ttcttttttc tcataaaggc cttttcaaaa 120
agaaacattg gttactttta aaatttcttt ttctagctct ttataaaaact ttattctttt 180
cataaatgta ccacaggata ctctctgag 209

<210> 1264
<211> 323
<212> DNA
<213> Homo sapiens

<400> 1264
gaattcgcg cgcgctcgac gagagtggca tgcattgataa aattcaaggc agcagtagac 60
ctctgggaca gtctgtagca gtccctaat ctacctgtat ccattgagcg agataggagt 120
gaagcctcct aggtctccag tctgcagcat ctctgtcaca tggaaacctg atgggtgcct 180
ctgtgagggg ggccaattat gcacagtgc cactaaacac agatcatttt agccttccta 240
attagccact aataaaaaga cactgaagta agtatcctga agatcaaaga gagatttcca 300
ccatgcctca ataactactc gag 323

<210> 1265
<211> 220
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (188)

<400> 1265
gaattcgcg cgcgctcgac atttaatat cactcttggt actttacaat cagtcactgc 60
tccctatgga atttcatagc tcacttttat aacagacatt ggtaaaataa gaattctattg 120
ttaaagtact catctaaaat attttaatac tcattggagt gatttttgc agcaaagctt 180
aaaaattnac ataattgctt gtttcacctc gatcctcgag 220

<210> 1266
<211> 289
<212> DNA
<213> Homo sapiens

<400> 1266
gaattcgcg cgcgctcgac cagtataaa aacagtctct taattaaact tgcctgaatc 60
ctctataaac ttggtaattt taggcaatat agtctccctc cagtgttcat gagagattgg 120
ctccaggaca cccctcctac caaaatcctt ggatactcaa atcccttata taaaatagtg 180
tattatttgc atataactta tgcaccttct cctgtatact ttaaatcctc tctagattac 240
ttataatatt aatggtaaaa ccacaattac ttctgcacca actctcgag 289

<210> 1267
<211> 243
<212> DNA
<213> Homo sapiens

<400> 1267
gaattcgcg cgcgctcgac tgaatataaa tttttttata gcatgttaat tgcttataca 60

aaaaagcttaa taaaagatag gttttttttt aagtatatatt ttctaaaaga ggaagattgg 120
 gtttttttgt ttgttttgtt ttattttttt tttttttttg agacagggtc tggetctgtc 180
 atccaggctg gagtgcagtg gcattatctc agctccctgc aacctccacc tcccagagtc 240
 gag 243

<210> 1268

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1268

gaattcgagg ccgcgtcgac ggggtccaga aaaccagggg gactcaaac agaagaaac 60
 tgcaaacatt cgttttattt gctattttta aaaatttggg aatatggcgg ggtgcgggtgg 120
 ctcacgcctg taattccagc actttccctg ag 152

<210> 1269

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1269

gaattcgagg ccgcgtcgac ggttttatga acatttatatt agccgttgta ttgtgggtgg 60
 ggattgtata ccatgctttt tttttgtatt ttttttttac ttctttttaga gacagggtct 120
 cactctgtca cccagttctg agtgacagtg tgtaatcata gticagtgca gtctcgaact 180
 cctgggctcg ag 192

<210> 1270

<211> 384

<212> DNA

<213> Homo sapiens

<400> 1270

gaattcgagg ccgcgtcgac attaagcatg acatatcctt catatgatca ctcatcttga 60
 gtttaattaga aaatacctga gttcacgtgc taaagtcatt tcaactgtaac aaactgacta 120
 tgggtttctta agaacatgac actaaaaaaa aagtgggtttt ttccaccgt tgcgtattat 180
 tagacagtag gaaatagctg tttcttttag ttttacaaga tgtgacagct ttagtggtag 240
 atgtagggaa acatttcaac agccatagta ctatttgggt taccactgat tgcactattt 300
 tgttttttta acagttgcaa agctttttta tggcataaaa gtataattga aatctgtggg 360
 atttatttac aaacatgtct cgag 384

<210> 1271

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1271

gaattcgagg ccgcgtcgac ggtggctgcc cctgtcccag cccgcaaac cccctgctcg 60
 gcgtcctccc gcccggtgac tcttgggtgg ttgcccagag aggcgcacgg ccgcttgggt 120
 cgcgggggag cgaacgggag gccggggaat gcgaaccggc gcaactctc gag 173

<210> 1272

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1272

gaattcgagg ccgcgtcgac caacctctcg ctgtccatgt atttcttctg gctgggaatc 60
 ctggccctgt cccacacat cagccccctc atgaataagt tttttccagc cagctttcca 120
 aatcgacagt accagctgct ctccacacag ggttctgggg aaaacaagga agagatcacc 180
 aattatgaat ttgacaccaa ggacctgggt tgcctggggc cactcgag 228

<210> 1273
 <211> 407
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (24)

<400> 1273
 gaattcgcg cgcgctcgac cgcncattta tgatttggaa caactagggt ttatataaga 60
 tacaaaaatt aaacaaagga tttgtgcatt gcaaaaagct acaaggaggt ccaaagcagg 120
 aagttatgca aaacatagca tttgcccctg actgggagtg cagggaagat gtggaagagc 180
 agagaggaag agaaggaggc tagggtagg tacctactca agaagggtga aggggaattgt 240
 ggaaggagag gggccggtgt cctgctcctg ctgtcaaaact ctagaacctt gtggggctgc 300
 tgtgatccca cagagaacgt gaagagggct ccagttccc tatggccagt gccaaagctgc 360
 aagtacatta gggagtatct ccaaggcttg tgggtgggga actcgag 407

<210> 1274
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 1274
 gaattcgcg cgcgctcgac gagagatttt tacttatata atagtccctag agtttgcagc 60
 tggtaaaacc agaggetaca tccagtattc ctgctaagag acattcttca tccaccaatg 120
 ttgtacatgt atgaaaatgg tgtactgtat actttaacat gcctcctcga g 171

<210> 1275
 <211> 274
 <212> DNA
 <213> Homo sapiens

<400> 1275
 gaattcgcg cgcgctcgac cttgaattgc ctttagagca ttgtgtccgt ggtttcaatt 60
 gtatcacaga atgttacaca gactgaagtt aagtgggttac tttttgtcag gggttatctt 120
 atttttctcc attcagttta acatgtgtac tgcaaaaagac agtatttttg gaaatgaagg 180
 catagtcttt catttaaaaca tgcacagag ggatttccact aatgaaagca ttcaaatcat 240
 gtgcctagtt cttgtttcta gcagcccact cgag 274

<210> 1276
 <211> 163
 <212> DNA
 <213> Homo sapiens

<400> 1276
 gaattcgcg cgcgctcgac cctgattcca aaggatatt tctgcgacac ttacaatgaa 60
 attccaacct ggcaccatct ttttcaactgc agaatgcag aagggtggtg catcatgtca 120
 tttcgacatg catttaaatg taatgaaagg cacacagctc gag 163

<210> 1277
 <211> 254
 <212> DNA
 <213> Homo sapiens

<400> 1277
 gaattcgcg cgcgctcgac tcttgagata atttaattga aatctgtatg gtgtgttttt 60
 ttttaatat tctgtttttat cttttgattg gctgtgttta cagtgaacat ttcctctact 120
 ggataactat gtgtaaattg ccattagggg tttataagcc tttacaacca gttttaggcc 180
 aggaaatgtc cacagagttt gaagttttct ctttagggaa gttgttatgt tgctatagta 240

agggagtact cgag

254

<210> 1278

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1278

gaattcgcg cgcgctcgac cgattgaatt ctagacctgc ctcgagtgat ctgcctgcgt 60
tggcctccca aagtgcgttg attacagacg tgagccactg tgtctgtctt gtctctgata 120
tttatatgcc attatgtggc ctctactgcc ttaggattct aatgttccca ctaagctcga 180
g 181

<210> 1279

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1279

gaattcgcg cgcgctcgac ccattcccttg tattctctagc tgtttttttt gtttttttct 60
aggtgttttt tgttttttta agcttctaag tgaatcaact aatataattc ltaagagaat 120
tagctgtaaa gatattcata ccattgctct tcagacacat gcagctagtg ctacttgc 179

<210> 1280

<211> 239

<212> DNA

<213> Homo sapiens

<400> 1280

gaattcgcg cgcgctcgac aaacaaacaa aaaaagcatt tcttggagag aagaagcatg 60
tacagatgag caagtggaga ctaaagatgt ttgagtggat gagtagacag gtgaacaggc 120
gggcatttgt ttttattatt gttacttatt tttttttaa tttctttttt ggatgctccc 180
tcacccccct cctccttccc caggcaggta ttctgataga taaaggatgg gtgctcgag 239

<210> 1281

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1281

gaattcgcg cgcgctcgac gatttttagaa gctatagaca ttgtttaaga taactaagaa 60
tacttggtta agaagtataa ttgtctaact attaaggact ttcttttttt aatgttgtac 120
actattcttc ctactctttt ttggtttttg ttttgttttg tagagactgt ctactatgt 180
tgcccaagct ggtctcaaac ccctaattct gag 213

<210> 1282

<211> 148

<212> DNA

<213> Homo sapiens

<400> 1282

gaattcgcg cgcgctcgac atttggactt gtacctgata agcaagctca ggaattaact 60
tggtagecac cacaaaacct aaagaaagt aggcttagaa gtgcaactta atcacaattt 120
agattttaac acacacgcat ttctcgag 148

<210> 1283

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1283

gaattcgcgg ccgcgtcgac ggggaatcagg gaaaggctgc ctcttttggt tctcaactgg 60
 tattgattat tgctatcaac tatttgggga gaaaaaatca aaatgaagcc ctgtcaaatt 120
 ttagaagtac tatcttttgt ccttcaaaca ctttgtgatg acaccttaag aaaaacaaag 180
 ctcgag 186

<210> 1284

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1284

gaattcgcgg ccgcgttgac tgcagttgtc gccaaacttg ggtattcatg gaattttctag 60
 taaatgaaat acctatactt tgatactgaa gactgccaaa tacataggaa ttttctttct 120
 taataaacag taatgaagac tatatctcct tttccagcac tgaatgtttt actagcactg 180
 ggtgctcacc atgcaactga agaaaatgtg aaatctctcg ag 222

<210> 1285

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1285

gaattcgcgg ccgcgtcgac ggtgtacgga tttttttctc aaattatcta ttttggtgat 60
 gttttttgta ccattctgt tgtgtttgct tttattaatc tataatcatca tctgcttcaa 120
 tatggaacac ccacaggtg caggtctgag gtgctcctcg ttggcagctc cttaaagagaa 180
 gcagctcgag 190

<210> 1286

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1286

gaattcgcgg ccgcgtcgac attgtacatg cttctggact tgccttttcc cttagtgtac 60
 cttggggaat ttgccttgat atatggagag atgcagctgc tttgtttcat gttttgcttt 120
 tttttttgga cagttggaca tgcgtgtccc aagtgtgttt atttagccga tctcgag 177

<210> 1287

<211> 293

<212> DNA

<213> Homo sapiens

<400> 1287

gaattcgcgg ccgcgtcgac caaaaaaat gctagagtaa gaaatcagag gaatgggaaa 60
 atgaggggtg gattaaatga aatacgcata aattactata caaatgcct gcagtgaag 120
 ccggttgaat ttgttgagat agattgcaaa ttttacttta gtcttccag aagtcacggt 180
 aaagaagggt acagaagtat tgtgtattca aaatccaaag tgcctttggg ataaaagtaa 240
 ataggtcatt caggagaagg acatgttttc ttaattctaa aagctgactc gag 293

<210> 1288

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1288

gaattcgcgg ccgcgtcgac ctaaaatttaa gtatgcagtt ctctttttgc tgggtttatt 60
 cgtgctggtt catcgtgagt aagaagcccg ccttgctgtt cctgggaaga tgccatagtt 120
 ttcgttactg gatgtttgga gtagatactg gtctgtgatt ggtggaatgg agaacacacg 180
 tgttgggtgct tctgggtagc actggtttgc attagtttat gtttccatgc cagagtttgt 240

gtgggcgggc gcatgtgcac cacagagtgc actcgag

277

<210> 1289

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1289

gaattcgcgg ccgcgtcgac aggagctatg cctccaaggt ggctccttac acccatataa 60
 atgtgggatg gaattctgaga ccttagaagg gcccttcggg gtaaacctctg aaggttagtg 120
 ccagaaggag gtgggtcaact tcctaagtgg cctgggggtca agatcatttt cacctagaaa 180
 gacaccagac tatagaaatc taggcaatga caaactgcta ccattttcct catatgattt 240
 tttttcaggc agcttgggga ctcgag 266

<210> 1290

<211> 139

<212> DNA

<213> Homo sapiens

<400> 1290

gaattcgcgg ccgcgtcgac caagaattca ttttttttat tttttaaaat taaaaataat 60
 ttatatctcc tctgttgcac gaggattctc atctgtgctt ataattggtta gagattttat 120
 ttgtgtggtt atcctcgag 139

<210> 1291

<211> 154

<212> DNA

<213> Homo sapiens

<400> 1291

gaattcgcgg ccgcgtcgac gagagagtgt actttatcct cacaagtcta ttagtgcata 60
 ttaaatacata atgaaagcaa tccttggcca ggtgcagtgg ctcatgcctg taatcacagc 120
 acttttggaa gcggaggcag gcagatcact cgag 154

<210> 1292

<211> 269

<212> DNA

<213> Homo sapiens

<400> 1292

gaattcgcgg ccgcgtcgac gtaaatgctt attagttaac caggcaggtt taaccacgtt 60
 attatagaaa ctctaagagg ttccacatgt gttttttttt tgttttggtt tgtttgggtt 120
 ttttgagatg gagtctcgct ctgtcaccca ggtgggagtg caatggcgtc gtcttggctc 180
 cctgcgacct ctgcctcccg ggttcaagca gttatcctgc ctcaacctcc caagtagctg 240
 ggattacagg caccgcgcaa ccactcgag 269

<210> 1293

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1293

gaattcgcgg ccgcgtcgac gctaattggc gtttgcattt gtgtcttcaa acagatcctg 60
 gttacagcca ttttgtgtga ttcaacttcgg ggtttaagta atgcaggatt ctgcaaacaa 120
 ggtgtcgccg tccaaatgta ctgtcctggc atagagagca ctgctttggt ttccactggt 180
 gtagagaaaa ctaggagagaa gctcgag 207

<210> 1294

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1294

```
gaattcgcg cgcgctcgac atttcagtgg tatttttatt ttctactccc tattccttta 60
gcttggttca gatttaaatt gttcctcatc ttctagtatt ttaagggtcaa aggttaggtt 120
attgatttga catccttctt gtttgtcaat gtaaataatt acagttataa attttatctt 180
tagatgcac aaaacaaaat gtattggcaa agagtcatac tcgag 225
```

<210> 1295

<211> 197

<212> DNA

<213> Homo sapiens

<400> 1295

```
gaattcgcg cgcgctcgac taacaatatt gattcttcca atccatgaac atgggatatc 60
tttccatttt ttgtgtgtct tcttcattta ttttatttat ttattttttt gagatgggtg 120
ctagctctgt ccccatgct ggagttcaat ggcagatct cagctcactg caacctctgc 180
ctcctgggtt gctcgag 197
```

<210> 1296

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1296

```
gaattcgcg cgcgctcgac ctgacttttc tacatatgct ttatcaacct cttaattaaa 60
ccatcattgt ctatittgag agataactgc gctgcttccc attgtgtgtt ttaaagtta 120
ttgttcagtt tgagtcaaat aaaaggatat ttaatctatg gtggcctcga g 171
```

<210> 1297

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1297

```
gaattcgcg cgcgctcgac cgagttgtgg aattgtcaag gatgtcacac agtggacaga 60
aagtccaagc gagggagggt ctgaccagc gctgatggag attagtgggt ggtgtctggt 120
atgaggatct actgcactga caagggtgtc ctacagagtg gagtgtgtc atatggcctg 180
ggacgggaga ggccaagca cagcaaggac atcgcccgat tcaccttga cgtgtacaag 240
caaaaccctc gag 253
```

<210> 1298

<211> 170

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (32)

<400> 1298

```
gaattcgcg cgcgctcgac ctgcttttta anacaacaaa caagaacaac aacacaaaac 60
tggtaatgat ttggagtaat catcggggca tattgagtct gggtagtgtt tcgctgggtg 120
tagagtgtt gagacttctt gggaggactt ttccgcctc cactctcgag 170
```

<210> 1299

<211> 185

<212> DNA

<213> Homo sapiens

<400> 1299

gaattcgcgg ccgcgtcgac ccgggattta ggggcaggat aaagattagt aatagctagt 60
 aaggaacaga attcaaaatg tggctctctaa ttacaaaatc tatagtttta acttcattta 120
 ctgctactag tgtccctgat ggtataaact tcttaaatct ttcagtaggt ccagggtgatc 180
 tcgag 185

<210> 1300

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1300

gaattcgcgg ccgcgtcgac acttagtata actttgcact catttaaatt cagtgaatta 60
 ggtttttcagt ttctctagaa ggaaaaaagc caactttttg agcctgcctt tgtttctctg 120
 cgtgtaagtg tatgtgtata taagaaatga aaattcattt tctcaccagt ttractagttt 180
 atgtaagtgt gttcctttta atccatgttt ttgagaatgg acttgggaaa gcaatgggac 240
 tcgag 245

<210> 1301

<211> 358

<212> DNA

<213> Homo sapiens

<400> 1301

gaattcgcgg ccgcgtcgac agtccctggg gtgtggagcc gctaagggttt gcacccatga 60
 aacagaaaag ccacaccctc caagggtgtg ctttcatttt gggactgctg cagggagggc 120
 agaggcattg ctgagactgc ctggcaacgg ctgatgcccc aggtaggacc ttttccattt 180
 caaagtgggtg ttctaagtct cgtccaaca ctgtgtagga aaaagggttg tgcaaaaata 240
 ttcttggtca tccaccattt aaaatagtta gatgaggcta ttgccttgat gacagctgtc 300
 cacactcctc atgaaattaa cccgtatgcc ggggcatttc caaatgtctg aactcgag 358

<210> 1302

<211> 150

<212> DNA

<213> Homo sapiens

<400> 1302

gaattcgcgg ccgcgtcgac gaatttctgt attaacaaaa tattttaata aatcttaaga 60
 gaaaaatctt taaaaaaatt ttagggcaca atgaggcacc acttcctctg ggcaaatgca 120
 ttgtctctc atttagtgga cattctcgag 150

<210> 1303

<211> 200

<212> DNA

<213> Homo sapiens

<400> 1303

gaattcgcgg ccgcgtcgac agcatgctta ttcttacttc taaaaatata gtcattgtcat 60
 ggctgctttt ctggctactg ctacccttgt gtcaacttgt atcagcagta ttccaaggaa 120
 gcaaatggca cggtgaaatg aggataatc aaggaaggta tatttacaaa gatattagta 180
 ataaagatgc tggactcgag 200

<210> 1304

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1304

gaattcgcgg ccgcgtcgac ctggttttgt atagatgcat ggagtggcta ggaaagctgt 60
 tagaggtagg atatctagta agagccgtgg tgctcagccc tggctgcaca ttggaactgt 120

ctggagaaca tttaatggcc cgatgccag gttcacocca gatcaattat atcagcagct 180
cactcgag 188

<210> 1305
<211> 203
<212> DNA
<213> Homo sapiens

<400> 1305
gaattcgagg ccgcgtcgac cgcaggattg ggactgatac agaggccgcc acggagcccc 60
ccggagccac cgttctctgt gctgccgcgc ctgcccgaat cggaaccgtc gggccgcagc 120
cgccggcaat gccgcgaagg aagaggaatg caggcagtag ttcagatgga accgaagatt 180
ccgatttttc tacagatctc gag 203

<210> 1306
<211> 160
<212> DNA
<213> Homo sapiens

<400> 1306
gaattcgagg ccgcgtcgac caacattgaa gaggatcact gcttttcata agtaagttga 60
atattgaagt tcctgttttc ttaaattctgt agaaataaac ttgcatgttt tgtgggttat 120
gttaatttct aagctaattt gttgttctgt tcagctcgag 160

<210> 1307
<211> 585
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (18)

<220>
<221> unsure
<222> (23) .. (24)

<220>
<221> unsure
<222> (277)

<400> 1307
gaattcgagg ccgggtcnag ccnnttcctc taagcgttta cttacatggg taagatatcc 60
tggaacctct ctttcctgca ttaacctttg gccttcggca gcatataagc aattagctct 120
ttccaaaaat ttcagttcaa atgaattctt atacacctgc aggtcagaca gcatgccagc 180
gaggctccgc aacaggctcc ggtccacggc ctgcgcgtc ctctcgcgtc cgatcagcag 240
taggattcca tcaatgggtt tactctgaac cattttntca ctaataatat gggttctaaa 300
cagtttcta atccatattccc agatggaggg cagcgtggag ttctgcagca cataggtgcg 360
gtccaagaac aggaagatgc ttctgatcat gatcatttgc ctgcagtggt cctgccagca 420
cgtgttaate ttctttaaaa ataaaacact atctagttag tcttctctaa acggaaggat 480
ctgtgcctgg acgtggtctt cacaggcctg acgcagttgc ttgtagagca ttggggagac 540
tttgtgagaa cagagatttt ccacagcctg gtagagctcc tcgag 585

<210> 1308
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1308
gaattcgagg ccgcgtcgac ctttaaattgt tttttctacc ctcttctctc ctttctggaa 60

ttccagttac acgttttttag atattttgat attgtcctaa aaataacatt gcctctgtac 120
 atcttttttc agctgttttt ctcttttattg ttttagttttg ccatttgtta ttataattta 180
 gttcaggaca caaagatgag ggttaggaga agcctcgag 219

<210> 1309
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 1309
 gaattcgcgg ccgcgtcgac cacgttagtg tagacatggc cttgggggct gagcgcagca 60
 gccaggctgc cagggtctgg ggcgggtagg aggcacggta gttggtgggt gggagagagg 120
 cctgggtggg ggcggtcagt tagcctggct gggtagggt gatgaggtga ctcgag 176

<210> 1310
 <211> 182
 <212> DNA
 <213> Homo sapiens

<400> 1310
 gaattcgcgg ccgcgtcgac gccagggaata tgttctgtaa aaacgtgttt tatatgattg 60
 tgcagggtgt cttactgtcc ccagaactac ctgaatcaga ctgctgccc gcaggtggca 120
 ctggaataaa cctcctgtgg aatgttrctc atgccctct cttatggcag gacacactcg 180
 ag 182

<210> 1311
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 1311
 gaattcgcgg ccgcgtcgac tgaagagaga gcaccacatg gacatccgag atgtaaccat 60
 ctaggcagtg agggcagcat gttagcagag aggtgaagga tgaagacaga gcaccaaagt 120
 ggcacccgag atgtaaccat ctaggcagtg agggcagcat gttgcctcga g 171

<210> 1312
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 1312
 gaattcgcgg ccgcgtcgac ggagaatcac ttgaacctgg gagatagggg ctgcagtga 60
 ccaagattgc tccactgcac tccagcctga gagacagaga ctccatctca aaaaaataaa 120
 gaaaccgcgc ccagcccgaga cccctcatte ttaaagaata gtacttctc tctaagtgat 180
 aagatcctga tgaactgtt aaaattcagg cgagcgtcg ag 222

<210> 1313
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 1313
 gaattcgcgg ccgcgtcgac gtaacaacca gttgagaaaa agggaggaac tgaagataac 60
 tcaggttttg agctagggtg gaggaataat ttggaaggag aagataacaa actgcatttt 120
 agaccactg agatggaagc ctcaagaagga catcattgtg aaaatatcca gcaagcccat 180
 ggaaatgtgg agaggtcaga accaaataaa ctcgag 216

<210> 1314
 <211> 251
 <212> DNA

<213> Homo sapiens

<400> 1314

```
gaattcgcgg ccgcgtcgac acagctctct cctcatttta atccaagggt agagttgtaa 60
tcctgagaac agccaggatt cacagttgaa aaataattta aaaagctctt ctgggggtat 120
agatttttag ttcaaaaaaa catatcaata ttcagagtta tacagaaact gacagaggtg 180
ttatttttaa aagattcaga agaatggatg actcatactc ttcaactaga tttcatcacg 240
ggatgctcga g                                     251
```

<210> 1315

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1315

```
gaattcgcgg ccgcgtcgac attagagaat aaaagggaat gacttaaaat ttttccatgt 60
atgtattgat ttatagatta tttttctgta cggtttgtaa aatacatgtt ttttctttt 120
tttgagacag tcttactctg gcatctaggc tggagtgcga tggcgcaatc tcagctcact 180
gtaacctccg ccacctcga g                                     201
```

<210> 1316

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1316

```
gaattcgcgg ccgcgtcgac acctgacgtg gcctctagag aatgttgccc agggcagtag 60
agcctccctg gtggcactgc tgtcagcacc accctgcaca gcccggcaga accctgcctt 120
gccctggcca tctctgtctc tgagattcac cacggaggtt agcttggtta taggtgagct 180
gttaagagta ggggtttgtg ttcttggaag ttagggctta ggagccacac atttccctct 240
tgcccagctc ttgttgcctt agaccatttt ctttatcttt ttcaatgaac acttgtcaaa 300
gtgtgctcct tcctcccatc ctctcgag                                     328
```

<210> 1317

<211> 254

<212> DNA

<213> Homo sapiens

<400> 1317

```
gaattcgcgg ccgcgtcgac caaaaacatt aaaaaacttt cctaagtcac ttagagtgat 60
tttaaaactt ttttttaact gtatcacact gcttctcgat agttcaagtt aattatctta 120
tttgatatct tagacttggc acagtgtctg tgttcccagg tggctgaata ctaaggctaa 180
atattagctg aatgccttcc atgtgctcaa cctgtctatt gtctagaaaa ctaaaatcta 240
ggctgggact cgag                                     254
```

<210> 1318

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1318

```
gaattcgcgg ccgcgtcgac tccgtattta gtttcttttt ctctgtgttc aatctctgga 60
tttgacctc tagctccctt tcagctttct gtttctcatt gtttgccttc ttttcttctt 120
ccagctgatg ttccaactgt ttcttctgtt gtttcaaaga tttgatggtg tcattcagtc 180
gactgatttt tatggacctc gag                                     203
```

<210> 1319

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1319

gaattcgcgg ccgcgtcgac ccacttttca gtaggcaag acactttctac cacaacaatc 60
 aggtaatctt ctcataattg tgaatatgga agtgattgaa tgtttctatc ttattttgga 120
 ttcttataat aacttcataa gtctctgcac acaaataggg tcagattaa cctcgacttc 180
 tccaaagagt tctcaaaaca cgaagaacaa acttttaagt ctcttgatat tcttcattga 240
 ccatttatat ttagttgctg gtcaactcga g 271

<210> 1320

<211> 576

<212> DNA

<213> Homo sapiens

<400> 1320

gaattcggcc aaagaggcct agaagctgat caagtttctg gccttgcaga gaatacatca 60
 gcttttcccc tcccgggtcc aaccttcacc gggcagtgct gggacacatc agctggcttc 120
 tggaggggac cacatagaag tgcaaaaga ggagggtacag gcccgagctg tgttctaccc 180
 cctcttaggg ttgggaggag ctgtgaacat gtgctatcga accctctaca tggggacagg 240
 agctgacatg gatgtgtgcc ttacaaacta tggtcactgt aactacgtgt ccgggaaaca 300
 tgctgcata ttctacgatg agaataccaa acattatgag ctgttaaact acagtggagca 360
 tgggacaacg gtggacaatg tgctgtatc atgtgacttc tcggagaaga ccccgccaac 420
 ccccccaagc agtattgttg ccaaagtgca gagtgtcacc aggcgcgcgc gccaccagaa 480
 acaggacgaa gagccaagtg aggaggcagc catgatgagt tcccaggccc aggggcccga 540
 gcggagaccc tgcaattgca aagccagcag ctcgag 576

<210> 1321

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1321

gaattcgcgg ccgcgtcgac ggctctcac taatcaataa cacaagtgct aagttctaag 60
 tatttaaaaa aacaaaagac tgcaggtgac tccttctctc aggtcccatc tcgag 115

<210> 1322

<211> 557

<212> DNA

<213> Homo sapiens

<400> 1322

gaattcggcc aaagaggcct agacagaaga taaatgaaag tataaaaaaa cctttaagta 60
 gtaaagaggc cactcaaaag tgtatttctg ggtatagttc tgtcttccca gtagggtaga 120
 tgtcaggctc atctgttaat aaaagtcaac accaaaatga tggtaggaag tttgtggttt 180
 tgggggaaag ttcaaaattg gggctgtagg acatgtaaat catgaagata cgatttttta 240
 aaatagccaa atagtaatat aggtatgcta tggtagagat cttgattgtg catccattaa 300
 tgtatagtgt gcttaaaatg tctataggct aagggaattat tttgactttg atatgtggac 360
 aggaaggagc ctctgaaagt aacttgaaga aattgatatt ttcagttttg tagcatcata 420
 tagtctaatt ggaatggaca gagatgtgag gcagagatat caggaagcca ttacaggagg 480
 ccgggtgttg tgtggttaaa agtgactgag gcagagagaa cgaaattata ttgtaaagt 540
 agagacagct actcgag 557

<210> 1323

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1323

gaattcgcgg ccgcgtcgac caagcagcag cgagtaccag tcccttttct gttctgctga 60
 caagctcacc ctctgtcacc tgctcaacat catgaaggct tccaccactg ccttctgtgt 120
 tcttctctgt accatgacac tetgcaacca agtcttctca gcgccatag gagctgacac 180
 cccgactgcc tgctgcttct cctacagccg gaagattcca cgccaattca tcgttgacta 240

ttttgaaacc agcagccttt gctcccagcc aggtgtcatt ttcctgacta agagaaaccg 300
gcagatctgc gctgactcca aagagacctg ggtccaagaa tacatcaactg acctggaact 360
gaatgccgta ctccgag 376

<210> 1324
<211> 372
<212> DNA
<213> Homo sapiens

<400> 1324
gaattcgcgg ccgcgtcgac caaagtgatg agcatggttt cctattcctt tctggagatc 60
gtgtgtgtct acggctactc gctgttcac c tatatcccca cagcagtcct gtggatcatt 120
ccccagaggg ttgttcgttg ggtccttgtc atgattgcc tgggcgtctc aggcctctgtg 180
ttggtaatga ctttttggcc agctgttcgt gaggataacc ggcgtgtcgc cttggccacc 240
attgtgacaa tcgtgttgc tcatgtgctg ctctctgtgg gctgcttggc ttacttcttt 300
gatgctccag agatggacca cctcccagca gctataacca ctcccaacca gacagtaaca 360
gcggcactcg ag 372

<210> 1325
<211> 234
<212> DNA
<213> Homo sapiens

<400> 1325
gaattcgcgg ctgcgtcgac aggggaaggcg ctatagagag aaattaaatt tcacaaaagt 60
ataaaaagcaa agactggcta aaatctgtaa cttcatgagt aagaataaca acaataaccc 120
attctataat taactcctcc acagtgaaca atctgtaca cattccttga tgaggaatga 180
acctagctta ccacagtggg aacctgccac aactgcaagg ccgggggttct cgag 234

<210> 1326
<211> 537
<212> DNA
<213> Homo sapiens

<400> 1326
gaattcggcc aaagaggcct aggatctgta atgttgatta gtcttttagcc ataaccacta 60
cactttttaga aagacagaaa aatgtaagaa tttgttttta ccataatgag tcttaagtag 120
gttcatgac tacattgggg cctgggatta tttttttaat tttaagttag catgagatag 180
cctaataaat ggaggtgggg ccaggcatgg tggctcacac gtgtaatccc aacacttttg 240
gaggctgagg aggaaggata gcttgaggcc aggagtttga gactagactg ggcaacatag 300
caagaccccg tctctacaaa gcacaacgaa aaacaacaaa tggagttagt ctatgttgta 360
ttgetttgca caaaattagg aacagggtgt tgacaattga atttgtttcc tgtgaattct 420
aacctctaaa ggcattgcta gaggtcaagg accttcctgt gtatgttggtg caaaagcaat 480
ctccacagga cagcactgct tccatgcttc atacatcagg aatgaggcc actcgag 537

<210> 1327
<211> 206
<212> DNA
<213> Homo sapiens

<400> 1327
gaattcgcgg ccgcgtcgac caaccatttt gtctgcac tcttctttcc tgtagagcct 60
ttgaagcatt gtattttggg aaaattcttc tgtaaatact ataactttta taaatggta 120
agtattttag aattatctcc agtgcttact tctcccttct tctgtataaa tctgctactt 180
caattaagtt ctctccatc ctccgag 206

<210> 1328
<211> 178
<212> DNA
<213> Homo sapiens

<400> 1328

gaattcgcg cgcgctcgac atttgatacc tttagatgac tttaactaag tattccagcc 60
gccacatggg gtcacccatt gaccctggac cactgccttc accacttcac ctcatcagaa 120
tcagtgcggg atgttgtgtg tgacaactgt acaaagattg aagccaagag aactcgag 178

<210> 1329

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1329

gaattcgcg cgcgctcgac catgtgggtg gctgtattac tcatgtgtca gatgtaccag 60
atatcatgtt taggtattac tacaaatgaa agaattgaatg ccaggagata caagcacttt 120
aaagtcacaa caacgtctat tgaaagccca ttcgtcctcg ag 162

<210> 1330

<211> 223

<212> DNA

<213> Homo sapiens

<400> 1330

gaattcgcg cgcgctcgac gtctctcaaa aaaaaaaaaa aaagatcgtg tgtcacctgc 60
acacaacatt cacaaactaa agccaaattg tatttttaaa atttccttcc tcccttcctg 120
ctccctgaga ctgttttgat tgacatcttt tgtgtttcta tattttccga ggcagtattt 180
tctttgtatg ttaatcatag ttatagtaaa gtcagcactc gag 223

<210> 1331

<211> 234

<212> DNA

<213> Homo sapiens

<400> 1331

gaattcgcg cgcgctcgac gttctctaca acagaagcca agaaggaagc cgtctatctt 60
gtggcgatca tgtataagct ggccctcctg tgtttgcttt tcataggatt cttaaatcct 120
ctcttatctc tccctctcct tgactccagg gaaatatact ttcaactctc agcacctcat 180
gaagacgcgc gcttaactcc ggaggagcta gaaagagctt ccttctact cgag 234

<210> 1332

<211> 137

<212> DNA

<213> Homo sapiens

<400> 1332

gaattcgcg cgcgctcgac ttgtgcatac tgtaagcaaa ttgettagct tctctagaca 60
tcaactgtgt tggagatttg cctagcacat ataactaat ggtgtctcgc tgcactgcac 120
tcacacactt actcgag 137

<210> 1333

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1333

gaattcgcg cgcgctcgac cgagtttctt tctttcagta agacatacca aagtttgtgt 60
aaatcttcat tacttttgtt ccttagttgc tgacaggctc atgtgtctcc agattttact 120
ttttcttgcc ccagttttt tgggtcatca aaaaattctc gttgatcaga cctgcctcga 180
g 181

<210> 1334

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1334

gaattcgcg cgcgctcgac tgcataatata ccataaacac tgtgaagaag caaccattag 60
gcacaggaat ccagccagat aaattaagta gaaatgctca tctttcattt atgcctcgag 120

<210> 1335

<211> 157

<212> DNA

<213> Homo sapiens

<400> 1335

gaattcgcg cgcgctcgac gtacttgaag attaaagggc ttactgagga gtatccaacc 60
cttacaaccc tcttcgaagg agaataatc agcaaaaaac accctttctt aactcgcaag 120
tgggatgcag atgaagatgt tgatcggaac actcgag 157

<210> 1336

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1336

gaattcgcg cgcgctcgac gtcactgggg gtttcttctt tgcttgcctt cttcctcctt 60
accctacccc ccactcacac acacacacac acacacacac acactttcta caaaacttga 120
aaatagcaaa aaccctcaac tgttgtaaat catgcaatta aagttgatta cttataaata 180
tgaacttttg atcactttac tcgag 205

<210> 1337

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1337

gaattcgcg cgcgctcgac caagcttctg ctatagctcc tccctcaaaa catttcacag 60
ctcatcacgg cctgtagaat agagcccaaa ctctttttta gtggtatacc aagcccttca 120
tgatctactt ccactatcca gcttcattta ccacgtcctt tgtttcctat ctgctatccc 180
actgcaaacg acatgcagct cccctcgag 209

<210> 1338

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1338

gaattcgcg cgcgctcgac catttttaag atagaaaaat ttttaggttt ttgttaccaa 60
atctgtcagt cttttacttc attgtatttt tcagttatgg ctagaagac cttttgtacc 120
acagattata tatttatttt ttctactaac tttgtatctt ttttatgttt caaaatttac 180
atztatctgg aatcagtatt gctcgag 207

<210> 1339

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1339

gaattcgcg cgcgctcgac tgattggaaa tcgaactgga aaccggaagg caggagatgt 60
atgctccctt gggatgtatg gggaaatcac acagagctgt tagtacttca gtcatgggat 120
ttgctctcat gctatgcata tgggcctcac aactcgag 158

<210> 1340

<211> 194

<212> DNA

<213> Homo sapiens

<400> 1340

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gaattcgcg cgcgctcgac accagaacag agagggttaat ggtgtccacc acacgtcttt 60
ctcattcttt tctcttttat cttcactctg atttttcttt tgtcattcaa cgtttactcc 120
cttcccata cctcagtcct ccaggtgaca cctgggctct tttctgctg aacagcattc 180
cccaccaact cgag                                     194

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<210> 1341

<211> 236

<212> DNA

<213> Homo sapiens

<400> 1341

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gaattcgcg cgcgctcgac agtaatccca tgtacttatt tcttaaatac ctaggaagtt 60
cttcttgggt gctctctctg gccctccctt ctttctcccc caaccacca tcttgcaagg 120
caaggaaatgg cctctccctc cacagaggca acggctgcag agggagcact gtggctgcca 180
tccagttcc tcttcaaagc caaacagaca cgcgtgactc aaatccaaca ctcgag      236

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<210> 1342

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1342

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gaattcgcg cgcgctcgac catactgtat tattttgaag cggatcttaa acagtatcta 60
taagtattta ttcattccata agcatttcag tatttgtctc taaaagataa ggctctcttt 120
ttaaaatcat tatcacacct aagaaaaagt taataattcc ataatatcaa catatagtca 180
tatgtttaga ttgccagttg tttcacaat gttatgtgtg tgtatacttt tcagtttatt 240
tttgactcag gateccctcg ag                                     262

```

<210> 1343

<211> 178

<212> DNA

<213> Homo sapiens

<400> 1343

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gaattcgcg cgcgctcgac cccctgcctc gaggagatta tagtctatct ggagagatag 60
atggtcaaca aattattaca taaataattc atacagttgt gataggtact acaaagaaga 120
cgtataagtt gctatgaaag tttataatag gggaaattta cgtatccttg ggctcgag 178

```

<210> 1344

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1344

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gaattcgcg cgcgctcgac attttccctt cttattttgt tatacatacc cttcccttcc 60
tcccctgect ttcgtacatt cattcctctt cctctaccct ccagcacatc tacttactgg 120
tgtgtgtgtg tgtgtcagaa gataaaacag gtgtattatt gtataatgaa ttttgtatac 180
atgtttatga aatggctcga g                                     201

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<210> 1345

<211> 384

<212> DNA

<213> Homo sapiens

<400> 1345

gaattcgcg cgcgctcgac cccagcttaa ccatataatc tgtgtgactt tgggtgaatg 60
 attgaaacga tctgtgctcc gtgtcaccat ccacacggtg gggatcacag ttggtctctg 120
 tctctgggag gtctgtgggc tttaatgag acagtagaga tgaagtgtt agagctgtgc 180
 cccgtgcatg gccagtggtc aatgagatgg tctcagagta ttatggctgg agtcaccact 240
 tgtattacca ggaagcccag cctctgtgat cacaggatc caactatggt gactctgcac 300
 ctcttctctt ttctcttget ttctcattcg tcttattacc atttgetgaa attaatcag 360
 aacacacagg ggtcgaccc ctag 384

<210> 1346

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1346

gaattcgcg cgcgctcgac gaggagagat cgaattcgcc tctgtctctc aggcctctct 60
 gctcctgtct tttgttttga tgccggcgct gctgcctgtg gcctcccgcc tttgttctg 120
 accccgagtc ttgtgacca tggcctctgg aagccctccg acccagccct cgcgggcctc 180
 ggattccggc tctggctacg ttccgggctc ggtctctgca gcctttgtta cttgcccccc 240
 ccagctcgag 250

<210> 1347

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1347

gaattcgcg cgcgctcgac ctggctcttc gcaagtcgc ctacttgttt gtcaagctgt 60
 cccgctgggt ggggaaggctg cgctctgtct ttacgcgctg gcccttcacc cactgggtct 120
 tctccttctg ggaagaccct ctgatcgact toaggggtgc ctcccagttt gaagggcggc 180
 ccatgcccc gctcacctcc atcatcgta accagctcaa gaagatcacc aagcgcaagc 240
 acaccctacc gaattacaag atcaggttta agccgttttt tccataccag accttgcaag 300
 gatttgaaga agatgaagag tctctgag 328

<210> 1348

<211> 139

<212> DNA

<213> Homo sapiens

<400> 1348

gaattcgcg cgcgctcgac ctctggccta tgattgtgtt gtgtcttgca ttaaaaaaa 60
 aaatttgaga gtggtagaat tacttctgtt atctgaaata cctgagatgc actttaaaact 120
 gttgagatgt ctactcgag 139

<210> 1349

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1349

gaattcgcg cgcgctcgac cagaaagtac aaggagacag agaaaaaatc cgctctgaca 60
 agccacatcc atgattgatt gtaaggggat tattataatt gatagcttct ttatcatggg 120
 attgctagta tcatttgtac ttgctgggtc ttttaaagga acagactcac tcgag 175

<210> 1350

<211> 166

<212> DNA

<213> Homo sapiens

<400> 1350

gaattcgcgg ccgcgtcgac gtttgggttt tacatacaag caatctgcac ttgatttta 60
 aaaaagtctt aaaaattttt aaaggatggg gtcttgctat attgccagg ctggagtga 120
 gtggctattc gcagggtcaa tcatcatggc acattacagc ctgag 166

<210> 1351

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1351

gaattcgcgg ccgcgtcgac attcattgtg gtctatttg tttttacctg aatgtttgtt 60
 actaatcttc ctttcataga acctctattt ttttttttc taaacttgag tttagtctt 120
 tgttatggc atcataagggt aatggttagc atgtttaag atattctct tccaaatccc 180
 agcgaactcg ag 192

<210> 1352

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1352

gaattcgcgg ccgcgtcgac cataatgttt gcaaagaagc attttctatt ttgttctctt 60
 tttgtttttt tagagacagg gtcttgttct gtcacccagc ctggcatgca gtggttcaat 120
 catagctcac tgcagctca aacctctagg ctcaagcgat cctccactt cccaaagccg 180
 tgggattaca ggcagtagcc acagtgttg gtttatttt gccttcttaa agcatgggtc 240
 cttagcatg gtccctcccc taaaaatctc gag 273

<210> 1353

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1353

gaattcgcgg ccgcgtcgac gcttgcgttg ttccagcttg tcttcattta aacttgtggt 60
 tgtcttccac ctgcttcttg cattttacag tgttctctt taggtattat cttcaccttg 120
 acgcgggaac ccaaatccag atttatcccc ggtgtttgac tgatgcagct cttgcagatc 180
 accttccatg tcgtctcga g 201

<210> 1354

<211> 211

<212> DNA

<213> Homo sapiens

<400> 1354

gaattcgcgg ccgcgtcgac aaataagcca cagtaccaag ggttgatttc agtaagcaag 60
 tcccacaaac tttctgggaa gctttaagaa aatgaaaatg ctctcttctc acttttgcag 120
 ctgctgtacc ctctcctac ctctgctgac tgcagcaggt cagagtgggt ctgaggcct 180
 ctctggcagc gctggcctgc cccacctcga g 211

<210> 1355

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1355

gaattcgcgg ccgcgtcgac aaaggagacc cgtcaaaaa aaaaagtact tgtccaaaa 60
 gtttttgttt cctagcttag aatttataat cagattaggt ttggagata aagtatatgt 120
 ggtatttttt ttttagaca gtcttgcct gtcatcaggc tggagtgcag tggcgcaatt 180
 tgggtcact gcaaccteca cctcctgggt cactcgag 218

<210> 1356
 <211> 203
 <212> DNA
 <213> Homo sapiens

<400> 1356
 gaattcgcgg ccgcgtcgac tgttactcta atattacceca agattttctc cagcctgttt 60
 ttactcttac tttgaaacag ctgttttaaaa tgactcgtaa tctgcttaaa tctacatgct 120
 ttttgtgggt ctcaatccag ttacctacct tccagataat tccctcactg tcctgtcttc 180
 tccattcttc tgatgttctc gag 203

<210> 1357
 <211> 151
 <212> DNA
 <213> Homo sapiens

<400> 1357
 gaattcgcgg ccgcgtcgac caaactcctg ttgctttcgt ctatctcagg tctcatttta 60
 aaagaatatg aggcctcattt tacctcttct tccctccactc ctagttttcc tttttatatt 120
 tgacattggc agtagttcca gtacgtctga g 151

<210> 1358
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 1358
 gaattcgcgg ccgcgtcgac aatcctacct gatctttaac aaagcattaa taattctaag 60
 gataatctct attttgttgt gcttttttgt aactgtttta aataaatcaa tttgtactgt 120
 atatttgtac ttttgtgaga tcccttttgc tgttttacca ttttaagtct ctgtacttgg 180
 ctacacacag attgtatttt tattgttaat gctcttetta tggatagccc tcgag 235

<210> 1359
 <211> 181
 <212> DNA
 <213> Homo sapiens

<400> 1359
 gaattcgcgg ccgcgtcgac aagttattgt tgatattgga cgtcaggatt ggcccatgtt 60
 ctaccacgac ttttttacta acattttaca gttgatccag tccctctgta caacccccct 120
 tgggctgate atgttgaaga caacttcaga agagctggct tgtccccgtg agcaoctcga 180
 g 181

<210> 1360
 <211> 185
 <212> DNA
 <213> Homo sapiens

<400> 1360
 gaattcgcgg ccgcgtcgac aggatggctg tattcaggtt cctggccttt tttccgggtt 60
 ttccacttga ttctagactc ttgagtcacac agattctggt gctcccgctc tcagtcgctg 120
 acttgccctc agaagcctat cttgggagga cacacaccag tgtacctaa gttccctgcc 180
 tcgag 185

<210> 1361
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 1361

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gaattcgcg cgcgctcgac aagcatcctg cttttatgag tgtcatatct tttcatatct 60
ttttaaagat attaatccca agttttgttc ttggagtttt cttttgtttc cttcattgtt 120
tctgcctttt gaagtctttc ttccctctta ttgggctttt cagtttattc agggagacgc 180
ctccagccct gtgcagcata ggctgtaatc ctgggagtag ggaacaggaaa ggggaatgtg 240
ttgagagtc ccaaggccac cctcaggttc agctcgag 278

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<210> 1362
 <211> 217
 <212> DNA
 <213> Homo sapiens

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<400> 1362
gaattcgcg cgcgctcgac ccatgatggt gatggcttca tttctcccaa ggaatacaat 60
gtataccaac acgatgaact atagcatatt tgtatttcta cttttttttt tagctattta 120
ctgtacttta tgtataaaac aaagtcactt ttctccaagt tgtatttgct atttttcccc 180
tatgagaaga tattttgatc tccccaatga actcgag 217

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<210> 1363
 <211> 283
 <212> DNA
 <213> Homo sapiens

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<400> 1363
gaattcgcg cgcgctcgac aatttcactt ttacctgcat acagactgct cgcagaaagt 60
gattaattct tgatccagge tttctatatt gcacacaacc tggatcagat tctctctgca 120
gttgctcagg agccacatgc gatttgctga gcatgtgcac tggtgacag cgagccttcc 180
ctcctgcaga ggctacaccg cttccccaca ggcctggtgc agaccagagc tgtcacaggc 240
acttgtagt gtggagtgtc cagagagtag aggtatctc gag 283

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<210> 1364
 <211> 202
 <212> DNA
 <213> Homo sapiens

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<400> 1364
gaattcgcg cgcgctcgac ccattcttcc gtattggttg ggggctcctg tttctcatcc 60
tagctttttc ctggaaagcc cgctagaagg ttgggaaagc aggggaaagt tctcagaact 120
gttggtgctc cccacccgc cttccgcctc cccgcaggt tatgtcagca gctctgagac 180
agcagtatca caggccctcg ag 202

```

<210> 1365
 <211> 276
 <212> DNA
 <213> Homo sapiens

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<400> 1365
gaattcgcg cgcgctcgac atttttcatg actctgggct gtgtctactg cagctatgga 60
agttgggacc ttttcgggga ggcttatgct gccattgaga cttatcacca gacccacca 120
cccacettct ctttcgaga aaggatgact cacaagagtc ttgtctacct ctggttcctg 180
tgcagttctg tggcacttgc cctgggtgcc ctaactgtat ggcattgctgt tctcatcagt 240
cgaggtgaga ctagcatcga aaggcacaca ctcgag 276

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<210> 1366
 <211> 365
 <212> DNA
 <213> Homo sapiens

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<400> 1366
gaattcgcg cgcgctcgac agattggatt gctggcaaag cacagaatgc ctgtatatga 60
tgtaactgta tcaaaaataa aaagctgtca catactttgt aaatttttac cttgtaaagt 120

```

```

cacaaaaata gtttttaaag gaaaaagtac agtattcttt taataaactg gctcacagtc 180
tggttaggtct acaaccccat agcacaacag gtttatagag atgtatatag aattatagtc 240
cttattttttt tccttttgct gaaacctttt ataacagatt aacaatcaac tgcataaata 300
ttattaatat ttaaaaaaga gtttaagtgt attttgataa ttcacaaact atcatgcacc 360
tcgag                                     365

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<210> 1367

<211> 291

<212> DNA

<213> Homo sapiens

<400> 1367

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gaattcgcg cgcgctcgac tgtctggttt ggtgcagtta ccatcaccct caactcaaaa 60
cttcttgag ggaacatata tttttttcag agcctctgtg tgcctgggta ctgtatactt 120
cccttgacag tagcaatgct gatttgccgg ctggtaacttt tggctgatcc aggacctgta 180
aacttcatgg ttccgctttt tgtggtgatt gtgatgtttg cctggctctat agttgcctcc 240
acagctttcc ttgctgatag ccagcctcca aaccgcaggg ttctccctat a          291

```

<210> 1368

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1368

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gaattcgcg cgcgctcgac tgcaagatac agaggataag aggaaggaaa agaggaagca 60
gaagaaaaat ctgategtc ctcatgaaac agaaaaagtg ccaagagcac ctcatgacag 120
gcggcgagaa tggcagaagc tggcccaagg tccagagctg gctgaagatg atgctaattc 180
cttacataag catattgaag ttgctaattg cccagcctct cattttgaaa caagacctcg 240
ag                                     242

```

<210> 1369

<211> 212

<212> DNA

<213> Homo sapiens

<400> 1369

```

gaattcgcg cgcgctcgac accaccttct tcagcaaccc aaccacctca tcttgagaaa 60
ggagaaggaa ctgcaagcca ccaagtcttc atttttcagg gtttgaatac ttcccaaagt 120
tttctttcga aaataggata atgggtggaa ttttcagagt gattacatac ctcaacattt 180
ttattaacat acaacaatgg gaaagcctcg ag          212

```

<210> 1370

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1370

```

gaattcgcg cgcgctcgac cgaaaaacac agaccgcttt aacctcttta tttctgtccc 60
ccactgcatg aacatctata caattttaaa aatacttctt cataggatgc tttggccctt 120
catctattta atcatagcta catacctatt ttttataagt agcagtacac attcaaaggg 180
gcattctgag                                     190

```

<210> 1371

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1371

```

gaattcgcg cgcgctcgac ccagccaaga coaccatgaa gaaagcctat tacctggcat 60
gtggattttg tcgctggacg tctagagatg tgggcatggc agacaaatct gtagctagt 120

```


gcgggttgga ggaacctgaa aatccacaca cactcgag

158

<210> 1372

<211> 114

<212> DNA

<213> Homo sapiens

<400> 1372

gaattcgagg ccgcgtcgac ccgcgtgtca ctttggacaa tggaaatcta ctttttcttt 60
tccttttttt tttttttgag acagagtctc gccttgtcac ccagggtctt cgag 114

<210> 1373

<211> 193

<212> DNA

<213> Homo sapiens

<400> 1373

gaattcgagg ccgcgtcgac gcgacatgaa gtaccacatt tttcagatga tgatgcagta 60
tctgtactac ggaggaaacag aatccatgga gatccccacc actgacatcc tggagctgct 120
gtcagctgcc agcctgttcc agctggatgc cctgcagagg cactgcgaga tectgtgttc 180
ccataccctc gag 193

<210> 1374

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1374

gaattcgagg ccgcgtcgac caaggatcaa gtcacaagg gatctgttag aggtgtcgca 60
gtggatggat taaaccagtt gacagttaca actggttagt aaggattact caaattctgg 120
aactttaaaa acaaaatttt aatccattct gtgagcctca gttcatctcc aaatatcatg 180
ttgctacata gggacttact cgag 204

<210> 1375

<211> 313

<212> DNA

<213> Homo sapiens

<400> 1375

gaattcgagg ccgcgtcgac ctccgtttta aattcgatc ttttccctta gtaattgttg 60
ggaagtaata ataccagtat ctttttttct gggaacacct taatcttcca tggcttttagc 120
attcattgat gttttccaca tgaatcgata cctctatgac gttgccagat cctgtttctt 180
tatatccgct attccttctg catttgtag ttggcattct actgtaagga ggtgtttctt 240
atattattca gtgagttgta atccattact tttattattt atttatttta ttttaaatgt 300
cccatttctc gag 313

<210> 1376

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1376

gaattcgagg ccgcgtcgac cagaacaacc ctggaagtca atagatggca acagcagaga 60
gtaaagttag aactccatgg gggagaagaa accctcagga gaggcaggag ctctggcatc 120
aaccatctct ctgccagaa tctccttcca agttgaagct tcaggagttt gggttcttcc 180
aggggtacatt attggtccga taagattgga aaacactcga g 221

<210> 1377

<211> 168

<212> DNA

<213> Homo sapiens

<400> 1377

gaattcgcgg ccgcgtcgac gaaaaggaaa gaaatgaaga gaattcagag acttccatta 60
ttattaatac ctattttatt gattctgttt ctagccctga gtccgtcctt aacttgctat 120
aggatctctg gtaaatcatt tcctgtaata agcagctgtc acctcgag 168

<210> 1378

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1378

gaattcgcgg ccgcgtcgac tggatatatt ccagctgtag ttgcccagtg tttacttaac 60
acatctacat ttttttcttg tctatttttg tcccttggat aggaaaagct ataatttttag 120
gcaggactat acgtcgattt gtagccatgc ttccttccct tcccttgctc atcgtcgag 179

<210> 1379

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1379

gaattcgcgg ccgcgtcgac cataaaccac agaaatagta taacacacta tttttaaatt 60
atcgttttcc tacttaaat ttgttttagct taagacttct taggcatttt gtaaaagcag 120
gttaaattta ataaggtttc tgattttttt ttgtaaccgg agatagtttt tacaagttaa 180
ataacatttc agctaaataa aacatcgcta aataattgat atttgatgaa aatctgctcc 240
tgccctcgag 249

<210> 1380

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1380

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catttagtaa aatgcacaaa tgttctggca cctttaaaaa catctaaact tgttttgtct 180
tagttcttgc aatgccaccc atacacaaaa gttattaaat atttctctgt gcctgtctac 240
tacttgtctc gag 253

<210> 1381

<211> 142

<212> DNA

<213> Homo sapiens

<400> 1381

gaattcgcgg ccgcgtcgac ggtgccagg actactctca atactaaagg ctattttccc 60
tgccattaag ccacagactt cagtcacatc agtctactgc tttctctcta aacacatcat 120
gttctttcac atcctcctcg ag 142

<210> 1382

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1382

gaattcgcgg ccgcgtcgac aagacaccag atgaaagtac aaaaactaaa gatcagatcc 60
tgacttcaag aatcaatgca gtagaaagag acttggttaga gccttctccc gcagaccaac 120
tcgggaatgg ccacaggagg acagaaagtg aaatgtcagc caggatcgct aaaatgtcct 180

tgagtcgccag cagccccagg cagcaggatc agctogag

218

<210> 1383

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1383

gaattcgccg cgcgctcgac atcacttata ctggaatgct cttgggtgtg ttgcattgta 60
cagtgggtatt ggaaattatg cccttgetca gcactgttcc atcaaatcaa tccagtcaga 120
acaaattaat gctgttgcac ggaccaactt gggagtgtta tacctcacia atgaaaacat 180
tgcagctcga g 191

<210> 1384

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1384

gaattcgccg cgcgctcgac gacccagca actacagta tctggggcag ctgcaggctcc 60
tggatttatt tctcgattcg ctgtcggagg agaattgagac cctgggtggag tttgctattg 120
gaggcctgtg caacctgtgc ccagacaggg ccaacaagga gcacatctg cagcaggag 180
gtgtcccaact catcatcaac tgcctatcca gccccagtga ggagactcga g 231

<210> 1385

<211> 154

<212> DNA

<213> Homo sapiens

<400> 1385

gaattcgccg cgcgctcgac ataacaata tacacatacg acaggcaaca agcttgtttt 60
tgatttgcca gacatgcac attggctatt gtttgtttgt tttttgtttt tttgtgtttt 120
ttgggttact ttgaaatga gccagaacct cgag 154

<210> 1386

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1386

gaattcgccg cgcgctcgac cgtctggaac atgcgacttg tcttcttctt tggcgtctcc 60
atcatcctgg tcttggcgag cacttttgtg gcctatctgc ctgactacag gatgaaagag 120
tgggtccgcc gcgaagctga gaggcttgtg aaataccgag aggccaatgg ctttcccatc 180
atggaatcca actgcttcga cccaagctc gag 213

<210> 1387

<211> 187

<212> DNA

<213> Homo sapiens

<400> 1387

gaattcgccg cgcgctcgac acaagattgt gatttcatta tctaaacctt aaacttaac 60
ctttaaatat ttagctttt ggctgcatct gcccgaagta ctattccag caaattaaag 120
ttggaatacc ttaataata taaaataat gatagtaa atctatacttc tgttgccca 180
tctcgag 187

<210> 1388

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1388
gaattcgcg cgcgctcgac ctctctgatg accagcccaa gcttccttgc etttaattcg 60
tcatgcagca ttgcacttaa aagttcaagc ctggagctgg atttccaagt accattctgt 120
tttctcactt ggggaatgca gttatggctg gacttgaca gcggtcacc tctcgag 177

<210> 1389
<211> 127
<212> DNA
<213> Homo sapiens

<400> 1389
gaattcgcg cgcgctcgac gattgaattc tagacctgcc tcgagcttat gccctatttt 60
tttaattatt attattttta acttttggga cacacaaaaa tcagcaattc tcatgaagct 120
cctcgag 127

<210> 1390
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1390
gaattcgcg cgcgctcgac gctgaatgac acagggagac tacagagtat ttattattac 60
aaacacataa aaagcctaac ttgaagaatt aaaatttcta ttttttatct gtataacaag 120
tacaaccat caacaatgac aaattttcac agctgcttgt ttattgcttg ttttatatgt 180
ttacatatct caaatctgt taaaactgca ggtctcgag 219

<210> 1391
<211> 188
<212> DNA
<213> Homo sapiens

<400> 1391
gaattcgcg cgcgctcgac ttttagatga cgaagtccat aaataactag agaatttttg 60
ttatctgttg ttaagttgaa atgtataatc atttatcact aaattgcaca ttgcctttat 120
ttatttgtgc tctgtttttg gtttacagt taataatacc tcatttaaaa aataaaaacc 180
gactcgag 188

<210> 1392
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1392
gaattcgcg cgcgctcgac gttgaaaaat gttatttttc actcgatgtt caaatctccc 60
taggaaagca ggggcaaaag actttttttt tttttttccc tcctcatgct tggatcgca 120
aaagacttta aagagagaaa atgtctcttc ccacttctc tatatacatg ctgggaaaaa 180
aaagaccgga aggagctcga g 201

<210> 1393
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1393
gaattcgcg cgcgctcgac cgcgcccattg cagactgggtg tcaccgggat catgattgcc 60
cgtggcgccc tgctcaagcc gtggtcttcc acggagatca aggagcagcg gcactgggac 120
atctcgtcgt ccgagcgccct ggacatcctg cgggacttca ccaactacgg cctggagcac 180
tggggctcgg acacgcaggg cgtggagaag acccggcgct ttctgctcga g 231

<210> 1394

<211> 128

<212> DNA

<213> Homo sapiens

<400> 1394

gaattcgcgg ccgcgtcgac gagggagact tcaattcaga attttatcct tcataacatt 60
 atagtattt taaaagttat atgcagcaaa cgtgtagtat tttctcatt tcaaccttca 120
 ttctcgag 128

<210> 1395

<211> 199

<212> DNA

<213> Homo sapiens

<400> 1395

gaattcgcgg ccgcgtcgac gcaggatgag attgggaact agaaaaccat ttggacccc 60
 taaagtgtta ttgtctacta tctgtacac attctcttac agctcttact gctgcttttc 120
 ctgtcagtta ccccatagct ccaggattta catgttaact gttcctgaca catgtagaca 180
 gaaccaatat gatctcgag 199

<210> 1396

<211> 148

<212> DNA

<213> Homo sapiens

<400> 1396

gaattcgcgg ccgcgtcgac ctgagattat aggtagtggg caaacaattg ttattatgct 60
 cacaggcact ataaacattt ttttctact ttttacttgt gtatgcttat catgggaagt 120
 aatatataca gactttgccg ttctcgag 148

<210> 1397

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1397

gaattcgcgg ccgcgtcgac gagaatataa tccagttaga aaactgctat ttgcaaccc 60
 tcagtaaaat aaatgaaatt gggaaacact aatcaacaaa agtacaattt ttaaatgtgg 120
 atctggagac aaacctgtgt ctggtcagag ctacctacg ctatgaactg cctggctgta 180
 catgacccat ccaatttcac agctgaacca aacttactta ccaccacat tagttttaac 240
 actacactcg ag 252

<210> 1398

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1398

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctgacctct ctcaacacac 60
 tcctcaccgt attttttaac ccatttaaaa aaaaaaatct taaagccaaa attagaaaaa 120
 taactcccta cttttccaaa gtgaatttcg tagtttaatg ttatcatgca gcttttgagg 180
 agtcttttac actgggaact cgag 204

<210> 1399

<211> 393

<212> DNA

<213> Homo sapiens

<400> 1399

gaattcgcgg ccgcgtcgac tatgggttta atagtttttt taatttattt agggggaatg 60

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atggttgtct ttggatatac tacagcgatg gctattgagg agtatcctgc tgtagctcgt 120
aggtcagctc ctgctccttg cagcaaccgc ctccgacac catcgctcc atctcttctt 180
cctgatcgtc cgcgtcctcc agcggaggagg cactccttcc gtgggcccgc cctgaggtct 240
gggcccgcgc tgccacctcc tcctcgtcgt cctctccttc ggccgcccgt ggccgcccgt 300
cttctctccc agccggctcc atcgctcccg gcgtcccggg cacactcatg ccccgccagg 360
cctaggctgg gcggtgtgga acagccgctc gag 393

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<210> 1400

<211> 442

<212> DNA

<213> Homo sapiens

<400> 1400

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gaattcgcgg ccgcgtcgac gctggaggca gccgctggag gtagccagca gcatgcacaa 60
aaagctttcc ccactcagtc ctcttccatg ccttcctgaa gccactttaa atactgcaca 120
tctccttaat ccacagggag actgaagatc tctgggattt caaaaggatg tacagcagtg 180
aagatgcctt gagtaggatg ttcacagagg cagccagctc cttatccagc atggccgcct 240
tcgtcaggct cctggagaat attcatccag cttccagag gcatgacgct ccgcctctc 300
ttgacaggtg gctggcccag gatcaagatt cccctccagg ccaccgctcc acctggggag 360
gcctcagccg cggccgtagc cgcggtggcc tccataacgg ctgcagtcgt cccgcctag 420
agcctgggtt tggagcctcg ag 442

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<210> 1401

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1401

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gaattcgcgg ccgcgtcgac gaggtatcgg cttattatat gcttcttctc catgggaagt 60
aatatattaa aattcatttt tatctacagt gtggcccttg gtggggaaaa gctccccatt 120
cctgctctga ggagtgaact ccaatactgg ggcttgccca tgggtgctgc cacaccccag 180
agagaggcga tgcaagcctg ctcccaggcc tgctctccct cctcgacaaa ctggccatct 240
gttctctggg aaaaagagca gccttctctg atcttctctg ag 282

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<210> 1402

<211> 330

<212> DNA

<213> Homo sapiens

<400> 1402

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gaattcgcgg ccgcgtcgac gctttctctt tttgtgataa tccagtcoca agttccttat 60
tattctgaat aaatgaaata gcttcttgga gacagtaatt ttctacatga ggaggtgatt 120
cctgcagtag ataacagca atgtattctg ttctcaagca gtacacgttc tgggcagcag 180
cttctgctat attaaactct gagtcattct gtttcagttt attcaagtca gaaaaaagat 240
gtgtggcctc tttaaataaa ggtacagaat gaccaggtag cacctttgct cctcctgact 300
gaagaaggcg tttgaagcct gcttctcgag 330

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<210> 1403

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1403

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gaattcgcgg ccgcgtcgac ctgggtgttt ctcactcttg tttatctcta ctctgcagtc 60
tcccccccc tacttggatg tttgttggct tgtttattgc atttctctat cctgcctgtt 120
tctcaccgct ttttttccgc atgggcgtat caaccttgct gggctgtggt ggccctccgc 180
ctagctctga ccctggcctg gccttctggc ttccaccag ctcaatccct gtctttgttg 240
cttcgttggg ccagagttcc ctgag 266

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<210> 1404

<211> 256
<212> DNA
<213> Homo sapiens

<400> 1404
gaattcgcgg ccgcgtcgac cctaaaccgt ccccatgaac tccgcactca tcaagtggct 60
gtacctgect gattttcttc gggcccccaa ctccaccaac ctcatcagcg acttttctct 120
gctgctgtgc gcctcccagc agtggcaggt gtcttcagct gagcgcacag aggagtggca 180
gcgcattggct ggcgtaaca ccgaccgcct ggagccgctg cgggggggagc ccaaccccg 240
gccccacttt ctcgag 256

<210> 1405
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1405
gaattcgcgg ccgcgtcgac ggtggcatct gagaggctgg tcgtggactg tggttggggg 60
agggtgggagc tgttttaacc gtgtgcccc tctcctgtgc cggcgtgggc atcccccg 120
gcagtgggaa cggggcgctc ctccagcttc cgagtccagc cagcctgggc gcggggcgcc 180
gcccccgaga cccccgagga gtccgttctt ccttggttac gtggactgtg gagctggtct 240
cttgtggctc agcgcctgtc ggaggtactc gag 273

<210> 1406
<211> 271
<212> DNA
<213> Homo sapiens

<400> 1406
gaattcgcgg ccgcgtcgac agagccgtct ttctttctcc aacagttgcc tttccatgtt 60
ccaacaaatg aaactgttta ccattctcca tgggccttgt cctctctcac ttctgggect 120
ttgcacaagt tatttctctt gtaaaact tcttccaatc ctacctaaact ttgctttccc 180
ctgggggctc ccacagcacc cagtacgcct agctcaaagc actgtcatatc cttctgtgat 240
ggcctcctca gtagaccatg agttcctcga g 271

<210> 1407
<211> 395
<212> DNA
<213> Homo sapiens

<400> 1407
gaattcgcgg ccgcgtcgag aagtgccaga ttcttttaggg gctccaagag ttcattctgt 60
ccacacagaa ggacggctgc agcatgaatg gccatttctg tcaccgttcc atcaagggtg 120
ctgtcactag gccccgccct caacaatggc acagaattgt ccacgagcga tgttgcaaaa 180
cggctgatat caggaggtga aaggatcttg cattcgccaa tgaatttgct cacagcttca 240
cattgctctg gcgtgggggtg gaggcttgca ttgtgggac tgtaaaaaat agccacctct 300
ctaaacagtg ttaacaggaa gtaggctgac tgctggcttt ggggggtctt gcaggccttc 360
agagcagtct taatgcccag tggcttgacac togag 395

<210> 1408
<211> 306
<212> DNA
<213> Homo sapiens

<400> 1408
gaattcgcgg ccgcgtcgac cgagatgttg ctgctgtgc tactggcgcc actcttcttc 60
cgcccccg ggcgggcg ggtagcagacc cccaacgcca cctcagaagg ttgccagatc 120
atacaccgc cctgggaagg gggcatcagg taccggggcc tgactcggga ccaggtgaag 180
gctatcaact tcctgccagt ggactatgag attgagatg tgtgccgggg ggagcgcgag 240
gtgggtgggg ccaaggtccg caagtgcctg gccaacggct cctggacaga tatggacaca 300

ctcgcgag

306

<210> 1409

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1409

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gaattcgcg cgcgctcgac gccatgcacc gtctaccgct gctgctcctg ctgggcttgc 60
tgctcgaggg ctccgctcgcc cctgcgcgcc tcgtcccgaa gcgccttccc caacttggtg 120
gtttctcctg ggataactgt gatgaaggaa aggaccctgc agtgatcaaa agcctcacga 180
tccaacctga ccccatctgt gtctctggag atgtagtctg cagccttgag ggcaagacca 240
gcgttcccct cactgctcct cagaagggtg agctcacctg ggagaaggaa gtggctggct 300
tctgggtcaa gattccttgt gtagaacagc taggcagctg tagctacgag aacatctgtg 360
acctcgag

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368

<210> 1410

<211> 340

<212> DNA

<213> Homo sapiens

<400> 1410

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gaattcgcg cgcgctcgac ggcattgggg gacagaggag gtgggacctg gcagaccac 60
agctcccaag ctggggtccc ggaggcagag tgacaatgca tggctgtgtg ggagccaggc 120
aggcgggtgac gtggcagagc tgccagcagg ggcacaagag actgagcag gttggtgctc 180
acagtggatc tgagggatgg gcgtgcgtgg cagggccttg gccatggccc ctgaccaacc 240
cctgtgcacc aaacaaccaca ctgagctcag aatccgggca gagagggaac cactggtaca 300
gtgaggccaa ggcacacgca gccgggcctg cagactcgag

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340

<210> 1411

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1411

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gaattcgcg cgcgctcgac taaaccgtcg atgaattctc ccaccagca gctgaaggga 60
gaaagacgag gaggcaggg gcagacgagg aggtggggag caggcagccc gggcctcaga 120
ggacacatgg ccttcccccg ctggcaccac cacatcaggg ccaccagggg actgctcaca 180
cccaggggtt gccgcctctg gacctggctg tccctgggtc tgctgacctc aggagtgage 240
tgggcttaca gaggtaactg caaggaggga ctcgag

```

276

<210> 1412

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1412

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gaattcgcg cgcgctcgac ctcaattgcca tgatgggtatg gagcatcacc taccacagct 60
ggctgacctt cgtactgctg ctctgggcct gcctcatctg gacagtgcgc agccgccacc 120
aactggccat gctgtgctcg ccttgcaccc tgctgtatgg gatgacgctg tgctgacctc 180
gctacgtgtg ggccatggac ctgcgcctcg agctgccacc caccctgggc cccgtcagcc 240
tgccgcagct ggggctggag cacaccgctg accccctega g

```

281

<210> 1413

<211> 450

<212> DNA

<213> Homo sapiens

<400> 1413

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gaattcgcg cgcgctcgac ctaaaccgtc gattgaattc tagacctgac ccgttccgct 60

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gtgtacaccc tgaacctggc actggcgga ctagatgatg cctgttcaact acccctaact 120
atctataact acgccagagg ggaccactgg cccttcggag acctcgccctg ccgctttgta 180
cgcttccctct tctatgccaa tctacatggc agcatcctgt tcttcacctg cattagcttc 240
cagcgctacc tgggcactctg ccacccctg gcttccctgg acaagcgtgg aggtcgccgt 300
gctgcttggg tagtgtgtgg agtcgtgtgg ctggctgtga cagccagtg cctgcccacg 360
gcagtctttg ctgccacagg catccagcgc aaccgcactg tgtgctacga cctgagccca 420
cccatcctgt ctactcgcta cccactcgag 450

<210> 1414

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1414

gaattcgagg ccgctcgac cgattgaatt ctgacactgc ctgcacccc caatctaac 60
cccaacccc tcatcaacgt gcgcgacgg ctcttcacg cgctgttctt caagatggct 120
gtcacctatt cgcggctctt cccgcccgc ttcgctgctc tcttcgagtt ctctgtgctg 180
ctcaaggccc tgtttgtgct ctctgtcctg gctacatcc acatcgtctt ctccgctcg 240
cccatcaact gcctggagca tttctgtgac agcgccggcc gcgggagctt cccgggctg 300
gccgtggaac caggcagcaa cctggacatg caagatgagc tcgag 345

<210> 1415

<211> 355

<212> DNA

<213> Homo sapiens

<400> 1415

gaattcgagg ccgctcgac acttttttct ctttctgtat cctgttcaag aaatagtgtg 60
ctactccaag gtcattgcaga tgttttttct taaatgcttt attgtcttgt cttttatttt 120
ttatatctat ggtctatttg gtatggcttc gtgtgtgtgg tgtgaggtag ggattgagat 180
tctttttttt ccattggggt atctgtattga cccagcatca ttttctaaaa gatgcctttc 240
ctcattgcac tgcggcgctt cctgtgtgct tttgacaggg atgacagga tgaggatgat 300
aaagaatagg catagcgtgt ctttctcttg tgagacacag ggactccaac tcgag 355

<210> 1416

<211> 412

<212> DNA

<213> Homo sapiens

<400> 1416

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tgaacagaga gaatcaggct caaagcaagt ggaagtgggc agagattcca ccaggactgg 120
tgcaaggcgc agagccagcc agatttgaga agaaggcaaa aagatgctgg ggagcagagc 180
tgtaatgctg ctgttgctgc tgcctgggac agctcagggc agagctgtgc ctgggggcag 240
cagccctgcc tggactcagt gccagcagct ttcacagaag ctctgcacac tggcctggag 300
tgcacatcca ctagtgggac acatggacct aagagaagag ggagatgaag agactacaaa 360
tgatgttccc catatccagt gtggagatgg ctgtgacccc ccagaaactcg ag 412

<210> 1417

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1417

gaattcgagg aaagaggcca ttcaaaaagg ggttaagagt taaaatgggtg tgtgcagctg 60
taacactgga gctattttat ctcttaatga cagttaagga gagtctcgag 110

<210> 1418

<211> 105

<212> DNA

<213> Homo sapiens

<400> 1418

gaattcggcc aaagaggcca ttcaaaaaaa cgtgagaagt atttttgtac cctgtgtaac 60
aaaatattta tgcatacataa aggatttttc atatgcgtac tcgag 105

<210> 1419

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1419

gaattcggcc aaagaggcca ttcaaaagacc tgccctgaga ggtctcgagg caggtctaga 60
attcaatcgc ctcagaaggc caaagaggcc attcgctctc gag 103

<210> 1420

<211> 105

<212> DNA

<213> Homo sapiens

<400> 1420

gaattcggcc aaagaggcca ttcaaaattt gactgtttat aaagaaagtt gctttatttc 60
tttaaacatc ttcaaaagat gatcctttct tgtcacattc tcgag 105

<210> 1421

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1421

gaattcggcc aaagaggcca ttcaaaaatg tatggaaatt caactaattt ttggtgctgt 60
tattctattc ttcaaatcca ctgcataatg ttttagttc cagtactcga g 111

<210> 1422

<211> 125

<212> DNA

<213> Homo sapiens

<400> 1422

gaattcggcc aaagaggcca ttcaaaaaaa agattcagca aattgcttaa aatcgaggta 60
actagcaagc atatatcaag ggatacatga ctcggcttct gtctagtttc aaagccgtac 120
tcgag 125

<210> 1423

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1423

gaattcggcc aaagaggcca ttcaaaaaat ttgaattcag aagataagca ggtaaaattt 60
atcacaagat tgtgtggttaa tgagagtga gttggtcctc gag 103

<210> 1424

<211> 126

<212> DNA

<213> Homo sapiens

<400> 1424

gaattcggcc aaagaggcca ttcaaaaatg aaatgcattt ctagtgtgaa ctttaattgcc 60
acttggcttg atattatttt ccttagaatt gttggaatag aggagagagg aagggagcaa 120

ctcgag

126

<210> 1425

<211> 141

<212> DNA

<213> Homo sapiens

<400> 1425

gaattcggcc aaagaggcca ttcaaagatt gttaaagct tacaatttac aaataataaa 60
tatacaatgc tgtttatcat aaaaatccac ttagccaatt ggttcattaca aaatgtttt 120
gttaatatct gcgaactcga g 141

<210> 1426

<211> 133

<212> DNA

<213> Homo sapiens

<400> 1426

gaattcggcc aaagaggcca ttcaaaaaca ggaatttgag cacaagatga gaaaatgtgt 60
tgcccccctta gcgctggtgg gctggatggc ggccacagca cacgggggca cctcattccg 120
caggagctc gag 133

<210> 1427

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1427

gaattcggcc aaagaggcca ttcaaagtca gatgaaaatc tttttattct caaaattgtt 60
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<210> 1428

<211> 109

<212> DNA

<213> Homo sapiens

<400> 1428

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cagttagttc tcatctagaa tgaaagtcc atatatgcac tggctcgag 109

<210> 1429

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1429

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tctttctcca gaatcctctg gttataatgt gctcactgct aggtcaccag tcataaaaca 180
taaactcgag 190

<210> 1430

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1430

gaattcggcc aaagaggcca ttcaaaataa atgatatttg gcctctactt tgccttagct 60
gttaaactgt ttttagtatt tttgttaaat atttgcaag ggaaactcga g 111

<210> 1431

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1431

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 atgcattaat tccatttggt actattgtgc acaggccctc gag 103

<210> 1432

<211> 178

<212> DNA

<213> Homo sapiens

<400> 1432

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 agccatartc cattatttca gcttaagtca aatgtcgggc etcatgaggc aactggcttt 120
 gacaggagct acgctaatta ccacttacca acctttaatt tctgggcaaa acctcgag 178

<210> 1433

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1433

gaattcggcc aaagaggcca ttcaaaagt⁺ ggggtttctc actctgcttt tcttctgtg 60
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<210> 1434

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1434

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 ttgtcactga caagcattca tgttcatacc actagtctcg ag 102

<210> 1435

<211> 125

<212> DNA

<213> Homo sapiens

<400> 1435

gaattcggcc aaagaggcca ttcaaaaaaa atagaaagta aatagttcta agaattattt 60
 ggcataaatt atttttattt agccaataaa atagcctcca aatgtatatc tcagttgccc 120
 tcgag 125

<210> 1436

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1436

gaattcggcc aaagaggcca ttcaaaaagt attgcttaat agaaagtgag tagaacttat 60
 attcgatcat gttattgagc acatacttac gggcagttct cgag 104

<210> 1437

<211> 125

<212> DNA

<213> Homo sapiens

<400> 1437

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<210> 1438

<211> 206

<212> DNA

<213> Homo sapiens

<400> 1438

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 gaatgttttc ctcagaaggc caaagaggcc attcaaaaaa gcagaatgtt ttcttcagaa 180
 ggccaaagag gccattcaaa ctcgag 206

<210> 1439

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1439

gaattcggcc aaagaggcca ttcaaaaaga taaaattaaa aagccagaca tactttctat 60
 caagctgcgt aaagagaaac atgaagtaca aatggatcct cgag 104

<210> 1440

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1440

gaattcggcc aaagaggcca ttcaaacctt cagaaggcca aagaggccat tcaaaccttc 60
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<210> 1441

<211> 119

<212> DNA

<213> Homo sapiens

<400> 1441

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<210> 1442

<211> 123

<212> DNA

<213> Homo sapiens

<400> 1442

gaattcggcc aaagaggcca ttcaaaagta ttttgaactt agtcatcaa aggccataaa 60
 taatctgtaa acatgtttta taaaaaaaaa atcactaaag ctgatcccaa agagccactc 120
 gag 123

<210> 1443

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1443

gaattcggcc aaagaggcca ttcaagatt aataatgagc ttttgtttta cgtttttgag 60

cctgcttctt gcatgcataa aattaatact tcagccctct tccaaagaac tcgag 115

<210> 1444
 <211> 128
 <212> DNA
 <213> Homo sapiens

<400> 1444
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 aaaccattca aacctcagaa ggccaagag gccattcaaa aaaaagtaaa acttgctgct 120
 gactcgag 128

<210> 1445
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 1445
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 tttttataat gttaatatc tgttttgcct ttataattcc cacactcgag 110

<210> 1446
 <211> 118
 <212> DNA
 <213> Homo sapiens

<400> 1446
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 aacgtctagc accacactct cactaagaat ttcactgatg aggcggtggt ttctcgag 118

<210> 1447
 <211> 121
 <212> DNA
 <213> Homo sapiens

<400> 1447
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 caatttcata gttgaaagct gttacaaaat gaaagtgttg tgtatggtag gaattctcga 120
 g 121

<210> 1448
 <211> 152
 <212> DNA
 <213> Homo sapiens

<400> 1448
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 gattagggaa acagtatata agaacttact taactcataa taaaactaaa attcaacagg 120
 ggagagttat gatttttttg ctcgctctcg ag 152

<210> 1449
 <211> 129
 <212> DNA
 <213> Homo sapiens

<400> 1449
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 taccttgact acctgaattg caagggattt ttatatattc atatgttaca aagtcagcaa 120
 cgcctcgag 129

<210> 1450

<211> 133

<212> DNA

<213> Homo sapiens

<400> 1450

gaattcggcc aaagaggcca ttcaaaaag agtaggctat aagggaagat tgtcaatatt 60
 ttgtggtaag aaagctaca gtcatttttt ctttgcactt tggatgctga aatttttccc 120
 atggatcctc gag 133

<210> 1451

<211> 101

<212> DNA

<213> Homo sapiens

<400> 1451

gaattcggcc aaagaggcca ttcaaaaatt acgcattttt tttatcccca gaatagacat 60
 acataaaaat aatgcatact aagttcctgg caattctcga g 101

<210> 1452

<211> 142

<212> DNA

<213> Homo sapiens

<400> 1452

gaattcggcc aaagaggcca ttcaaaaag taaaacaagc aaagaagggg gtgtaatggg 60
 agttacagta tcccggcttg caatgttgtc tcactgccaa gctctgtcgc aggcctgcaa 120
 ttattctgaa ggggtcgtcg ag 142

<210> 1453

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1453

gaattcggcc aaagaggcca ttcaaacata aacataagca taaacataag aaacacaaaa 60
 gaaaagaggt tattgatgct tctgataaag aggggtactcg ag 102

<210> 1454

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1454

gaattcggcc aaagaggcca ttcaaacata atgtcagaat taatttaaac aaattataat 60
 taatgtaata tgatttttagg aaagatgaaa cactttatga gagcctcga g 111

<210> 1455

<211> 132

<212> DNA

<213> Homo sapiens

<400> 1455

gaattcggcc aaagaggcca ttcaaaaata aaattattga acagcttagc cctcaagctg 60
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 aacatcctcg ag 132

<210> 1456

<211> 136

<212> DNA

<213> Homo sapiens

<400> 1456

gaattcggcc aaagaggcca ttcaaaaaat aaagtgactg aactgtcaga tcaacaagat 60
caagctatcg aaacttctat ttggaattct aaagaccatt tacaagtaga aaatgatgct 120
taccctgatt ctcgag 136

<210> 1457

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1457

gaattcggcc aaagaggcca ttcaaaaaata tgatcgaaga aataaagacc ccagcctcta 60
ccccgtgtc tggaaactcct caggcttcac ccattggtcct cgag 104

<210> 1458

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1458

gaattcggcc aaagaggcca ttcaaaaaatc gaaaaggaaa atactttaac gttgaaagag 60
ttggtcagta cttgaaagat gaagatgatg atcttgtgtc accccctcga g 111

<210> 1459

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1459

gaattcggcc aaagaggcca ttcaaaaaag gaagaaaaaa acagatttac accacagata 60
gtgatgagat ttcatatatt gttaategta ttgtctctca gccaaaggat gaaaaaccaa 120
caactcgag 129

<210> 1460

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1460

gaattcggcc aaagaggcca ttcaaaaaaa aagaagttta tttctttgtc ttaaagaatt 60
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<210> 1461

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1461

gaattcggcc aaagaggcca ttcaaaaacta aaataaaaca tatgtgtcta tggttttcaa 60
ttggagtagt ctttcttact ttcccccttc cctcttttgg ttctcctaac cagcttagag 120
gacccaaga gagcttaggg atagacacca gaataactctg tggaggtctc gag 173

<210> 1462

<211> 141

<212> DNA

<213> Homo sapiens

<400> 1462

gaattcggcc aaagaggcca ttcaaaaatc aagagtttga gagcgccgg ctgaatgaga 60
 cactttcatc attttctgat gacaataaga ttacaattag actggggaga gcacttaaaa 120
 aaggagaata cagagctcga g 141

<210> 1463
 <211> 123
 <212> DNA
 <213> Homo sapiens

<400> 1463
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 tttcttaaat ccctttctctt gctgaactcc tctggtggaa ttgtccatgg caggtcactc 120
 gag 123

<210> 1464
 <211> 105
 <212> DNA
 <213> Homo sapiens

<400> 1464
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 ttgtattcga tgttacaaaa ccaatattct atggagtccc tcgag 105

<210> 1465
 <211> 117
 <212> DNA
 <213> Homo sapiens

<400> 1465
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 ttttgcctta tgaattcatt ttacattat ataacttctc ttacattctg tctcgag 117

<210> 1466
 <211> 102
 <212> DNA
 <213> Homo sapiens

<400> 1466
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 acatttaaaa tgatttcatt attattaccc atactcctcg ag 102

<210> 1467
 <211> 118
 <212> DNA
 <213> Homo sapiens

<400> 1467
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 ttcatatatt atttatcaaa gtatgaagtt gagtattttg cttgtaccac tctcgag 118

<210> 1468
 <211> 107
 <212> DNA
 <213> Homo sapiens

<400> 1468
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 acattaccat ttaattttat attatgaaag caaatcatct gctcgag 107

<210> 1469

<211> 433
 <212> DNA
 <213> Homo sapiens

<400> 1469
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 agaaacagct acgactcaac ctacccaatc atttcatcat cagattgcca ctgtctctag 120
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 ccaccgtcat tctccatata actcccagga gttaggcaaa aagccccctc cgttcttccg 300
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 atttactagt agcttaacac ttctaacag tgttcttatt attgatacgt atctatctct 420
 tccaaagctc gag 433

<210> 1470
 <211> 158
 <212> DNA
 <213> Homo sapiens

<400> 1470
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 caaacagaaa ctttagatcc actgctctct ttactctctc tctctatagc gctgtgaage 120
 aaatgtcctg catcatcccc attgcacaca cgtctgag 158

<210> 1471
 <211> 270
 <212> DNA
 <213> Homo sapiens

<400> 1471
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 tctaaagagg cactggtatg tctaaagagg cactggtatt gtttattacc tctagttgta 180
 tttgactttg ggattgtaga gaaaaataat ttccctttgt gggatggggg aagaatccca 240
 tgccagtatt catcatatgg gaccctcgag 270

<210> 1472
 <211> 359
 <212> DNA
 <213> Homo sapiens

<400> 1472
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 agaatactgt ctagattctt aaaatatttt catttccatc atgggtataa caaatttgct 180
 gcatgccccaa actgacaaca gcaatcactg agggacacag ttttgaatct ttcttttctg 240
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 ctttttgttt tgtttttgcc aaatgtaaca tgaaagcaga tgctgcagct tctctcgag 359

<210> 1473
 <211> 407
 <212> DNA
 <213> Homo sapiens

<400> 1473
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 aggaagctgt ggagaagctg aaggccaccc aagcagacat gggagagaag ctgagctgca 180
 ctageaacca tcttgacag tgccaggcgg ccattgctgag gaaggacaag gagggggctg 240
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aagagtatta caacaaactc tgccaggagg tgacaaatcg tgagagggaat gaccagaaga 360
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<210> 1474

<211> 521

<212> DNA

<213> Homo sapiens

<400> 1474

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accaatctat gcttacattt atacgttttg ttctttttat tgtgtttata agtatcttta 480
tatcactcac tgccttcaac ataaatacct tgacactcga g 521

<210> 1475

<211> 381

<212> DNA

<213> Homo sapiens

<400> 1475

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aaagaatc agtcagtga agaagagatg caaagtacta ttcgagaaca cagagatggt 360
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<210> 1476

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1476

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<210> 1477

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1477

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tctgcctctg ggtgggggcc acaggtactg ttcagtcctg ctctggatgg agtcagtcag 120
ttgccagaat gcagaagtcg gaaaaacatc tcaaaagacc agtcttgcca gagctcgag 179

<210> 1478

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1478

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 cctttctctt cccattacc actaccagca caccaatata gattttcccc ctcgctcagg 240
 gaggccatga ctggagggag gggtaaggag cctctcgag 279

<210> 1479
 <211> 144
 <212> DNA
 <213> Homo sapiens

<400> 1479
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 caagtactat acccattact cgag 144

<210> 1480
 <211> 209
 <212> DNA
 <213> Homo sapiens

<400> 1480
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<210> 1481
 <211> 532
 <212> DNA
 <213> Homo sapiens

<400> 1481
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 tcttaaaagt aaatccttgg gccaaagtgc attgacacac ccttactctg aatgtgattt 480
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<210> 1482
 <211> 585
 <212> DNA
 <213> Homo sapiens

<400> 1482
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 tcttaaacga aaaaccagct gccgctttta tgtacacata ttacatacga gtaggcagca 480
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<210> 1483
 <211> 418

<212> DNA

<213> Homo sapiens

<400> 1483

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gaattcggcc aaagaggcct aatttttttt gaggatttgt tttacttggg tgtcacattc 60
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accaagtctt agtcatacag aacaatatgc tgcaactgtt tacaattcct aaaactgtaa 180
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ttacttttta ggggtgggtg aaccataaaa taagatactg ttctttgaat gccttttagct 360
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<210> 1484

<211> 572

<212> DNA

<213> Homo sapiens

<400> 1484

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agctggacct cattgcattc ctggagcaga aggtgagat ttgcagtgtg ttccccactt 360
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caatcaaaaat tcattaattc cagagcaaga tccaagtgt tcattcccaa aatcctcctc 480
gacctttgct gtgattcttc attttctgca aatgggttca aagtgtccgc caggtctttc 540
cggtagacat atattcgacc agatgcctcg ag 572

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<210> 1485

<211> 451

<212> DNA

<213> Homo sapiens

<400> 1485

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gaattcggcc aaagaggcct acttcttccg ggcccacgga aaaggcgggc gtagtgctct 60
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tgggccctgc tgagcctgtt ttgccaattt tcccttggag gcctcgatct ccgcggtcac 180
cctctcctcc ttccaagata gtgatgttga tctggggcac ggcggtcgcc gggtagatgg 240
aggtagcagg gtcacagcag cgcaagcacc gggaagcagg gagccctcgg tcttgactgg 300
gcctgtatct ttcattgtgt tcttcagccc tctgggcatg gtccggaggg gacggcagct 360
cctcagtcct cctccactcc tgctgttccc cctggacatg gggcacgcga ctcaggacca 420
ggccagaggg aaaggcaagg agcaggtcga g 451

```

<210> 1486

<211> 590

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (69)

<400> 1486

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aaggaaacna ccatgtcatt tcagaagtta gtttgtatat attataataa tcttataatt 120
gttctcagaa tcccttaaca gttgtattta acagaatttg tatattgtaa tttaaaataa 180
tctatatact gtatttgaaa taagaattca gacatctgag gttttatttc atttttcaat 240
agcacatatg gaattttgca aagatttaat ctgccagggg ccgactaaga gacgttgtaa 300
agtatgtatt attcacattt aatagactta cagggtataa gcctgtgggg ggtaatccct 360

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gctttttgtg tttttttgt ttgtttgtt gtttgtttt ggggggtttt cttgccttgg 420
 ttgtctggca aggactttgc acatttgga gtttttatga gaaacttaaa tgttatctgg 480
 gcttatatct ggccctctgct ttotccctta attgtaaagt aaaagctata aagcagtatt 540
 tttcttgaca aatggcatat gttttccact tctttgcag cgtccctcgag 590

<210> 1487

<211> 596

<212> DNA

<213> Homo sapiens

<400> 1487

gaattcggcc aaagaggcct acttttgtct gcttcattct aaaatttaca cagtagacca 60
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 tactttctatt tgaatttcta tatttcccat gtgggtttta tgtttaatat taggggagta 180
 gagccagtta acatttaggg agttatctgt ttccatcttg aggtggccaa tatggggatg 240
 tggaaatttt atacaagtta taagtgtttg gcatagtact tttggtacat tgtggcttca 300
 aaagggccag tgaaaaactg cttccatgtc taagcaaaga aaactgccta catactggtt 360
 tgtcctggcg ggggaataaaa gggatcattg gttccagtca cagggttagt aattgtgggt 420
 actttaaggt ttggagcact tacaaggctg tggtagaatc ataccocatg gataccacat 480
 attaaaccat gtatatctgt ggaataactca atgtgtacac ctttgactac agctgcagaa 540
 gtgttccttt agacaaagt ttgacccatt ttactctgga taagggtctt ctcgag 596

<210> 1488

<211> 503

<212> DNA

<213> Homo sapiens

<400> 1488

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 gggctatacc accactagca tctgtatttg agactgttcc cttagatggg taagaggtgg 120
 aaaacaaact tagtatcagg ggtccatgaa gcccatggca tcatttttga aaatatttct 180
 agttttgtag ccaaagcaat tgggttttagt aaaaatgagac ttcttcagga gtcactcctt 240
 tactgtggac ccattgctta gtgggaatgg aagtatatgt atctatcttg tgtattaaact 300
 tctgacttar ttatacaaga gcagctatag gagtttaca aagaacttta agttattaag 360
 ttactataaa ttgggggatc cttagatgat cttaaatatg gcaagataga gctcatttag 420
 aataaaatct cacatccatt attttaaagg gaatgattgg ggggaaaaac tgggtgaaga 480
 gaaatataaa aaggaccctc gag 503

<210> 1489

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1489

gaattcggcc ttcattggcct acaaccccaa atattaagcc aagattaaaa aaccaaacag 60
 ataagaatgg catattttta tctaaatgac ttaattttgt tctcttcttt aatgttatgc 120
 tgtgggcaca attcaagcaa cttgacagct attttctctc agcataatga agaccttggt 180
 ctactcactg ctcaactcca gtgctgctgc tgggaaattg gtatgcgttt atatcactct 240
 gtcttcttta cagttctagt tccactcgag 270

<210> 1490

<211> 352

<212> DNA

<213> Homo sapiens

<400> 1490

gaattcggcc aaagaggcct acgctctccc tccgcaccca cccccctgag cccaggcttc 60
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 cctcgggtgg gcctcagccc agacagccca gcaggtagca ggaatagtgt gggcagtgag 180
 ggcagcgtgg gcagcctcc cagtgcgggc agcgggcaga gctctgagg cactaatggc 240

catggccctg gcctcctgat tgagaacgcc cagccactgc cctctgctgg agaggaccag 300
gtgctgccag gactccaccc gccgtccctg gcagacaacc cctccactcg ag 352

<210> 1491
<211> 287
<212> DNA
<213> Homo sapiens

<400> 1491
gaattcggcc aaagaggcct agaagctctc tgtttggaag tggagacaaa gaccaaatat 60
agattcttat tgttgcaact ctataattcc ctcaccctta ttttcaccag gcaaaatttc 120
ttcgtttttt ttatagctca gttcagattt cactttatct gtgaaacctt ctcatctgtc 180
cgctagttaa aagaggcctt tctttcatct tcatggtttt gtctattgta aagtactatt 240
attattgggt tatgtatctt tcttcaaccc actgtgattg tctcgag 287

<210> 1492
<211> 275
<212> DNA
<213> Homo sapiens

<400> 1492
gaattcgcgg ccgctgcgac tccctaetcc ccacccccga ccccccattca gaaagaagca 60
ctgttgacac ttcaatgcac attctgaact ccagggtcctt tctttgcata catcaagctc 120
tcactccttt gccggctctg tggctctgcaa acccagagag cagatgcttt gctcagcgtc 180
cgtaccacgc cagcacccca catgctctct tctgtacctg gtttgaaccc acaggtcggg 240
cccttgtaag cccttggtct cccaagcttc tctgag 275

<210> 1493
<211> 393
<212> DNA
<213> Homo sapiens

<400> 1493
gaattcgcgg ccgctgcgac agctgatcca agttttatgc tgatttttcc aaagatctct 60
ccctcctttt ccctccataa ctcacaggta ggggaagggg cggcattagg atgggtgtac 120
tgtattggga ttttatgttg ttctgtctgc ttcagcacag gtagtataag gttatattac 180
tgtagaacca cagtgtccat ctgtccagca gtgtccgccc ccacctcaa agctgagcag 240
gttgagcctt tgccctagtc gggccagacc cctcagatgg ggatatccct gggggagccc 300
ggtgctgaac cagaagaggg ttcctggtgc ttctgtctta ggccaccact cctccagccc 360
tttgcccgca catacatgcc ccacaaactc gag 393

<210> 1494
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1494
gaattcgcgg ccgctgcgac aagatacaat aaaacatact taactgtttt aaaaagtgtg 60
tcataggagc ttttgaacat acaaatagaa tcatacttca atttcagttt atactgaaca 120
aaatacagtt tttctttgaa ttggtagtac ttcagaatct gagtgtctta acagtcattg 180
tgttagttaa tttgagtgcc tccgtgatgc tgggtattca agatgctaag gatccatcca 240
gctttgaaca agacaagggc cagctcgag 269

<210> 1495
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1495
gaattcgcgg ccgctgcgac gaggacttaa cttcaggta gttgctgagg aagaggtctg 60

aaggtaatat tagtaccccc ccaactactt tcagctggaa acaagagctg tttgggacct 120
 tactgagttc ctactttaga gtcaagggct ggctttcccc tgcattctgt tgcattgtacc 180
 tcacaggtga gcagataaca tatttgtgca gctattccct tatgatttcc tctctattag 240
 agagaggttg gagcctatga cagactgcag agtgtttgct ccattcttcc ccaccccata 300
 gctctcagag 309

<210> 1496

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1496

gaattcgcgg ccgcgtcgac agccatagaa gaaacttgag tatgcctggg caccttcttg 60
 gatctgctgt cttaaattata tatatatttt actgcaggaa agtatacttc gtaaggagta 120
 gttttttattt atttgtttat ttggttctca gtggaacctt gtcaaattcc ataaaagcgg 180
 aaaaaaacaa aactcattag agtgttttaa attgaatggt tgccttttac atatatattg 240
 tcttcagcat ggttcctaat ttgaatgcta catgtttaga aaaattttca gccagggtgc 300
 gtggctcact cgag 314

<210> 1497

<211> 303

<212> DNA

<213> Homo sapiens

<400> 1497

gaattcgcgg ccgcgtcgac cctaaaccht cgattgaatt cttagacctg agcctgggtg 60
 gcagagcaag tctccatctc acaaaaaacaa gcaaaccaac aaaaaataaa caaatcaaa 120
 aacagggaaca tgaaaactgc ttttgttctc ttgtgtaata gatttacttt attttttttt 180
 ctgtttcctc ttcatttttc ttttttctt tctttatcct ttttttggg gggggcagaa 240
 tctcactcag tcacccactg cctgcagcc tgggtggcag agcaagtctc catctcactc 300
 gag 303

<210> 1498

<211> 380

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (21)..(23)

<400> 1498

gaattcgcgg ccgcgtcgac nnnagtgtgg ggttttttcc ccccaccagg aagtggcagc 60
 atccctcctt ctccctaaa gggactctgc ggaaccttcc acactcttt ctcagggacg 120
 gggcaggtgt gtgtgtggtg cactgacgtg tccagaagca gcactttgac tgcctcggag 180
 tagggttgta caatttcaag gaatgtctgg atttcttgca tcttgtggat tactccttag 240
 ataccgcata gattgcaata taatgctgca tgttcaagat gaacagtagc tcctagtaat 300
 cataaaatcc actccttgca cagtttgatc tttactgaaa tatgttgcca aaatttattt 360
 ttgtgttgtt agctctcgag 380

<210> 1499

<211> 498

<212> DNA

<213> Homo sapiens

<400> 1499

gaattcgcgg ccgcgtcgac cttttctagc cttagacaaa tgatcaccat gttagcetta 60
 gacgaagaag ctggctagtc ctttctgta agctaataca atggctattt ccagacaaat 120
 ttaaaggaaa cactaaggct gtttcaaaga ttatctgatt cttttaaata atatgtctat 180
 atacacagac atgctctttt ttttaagtgc tacattttta tagagatgaa tcagtttttg 240

aatctaagct gtttgccaag ctgaagctac aggttgtgaa ataattttta acttttggaa 300
tcatactgcc tactgttact ccaaatagaa atatagggtt ttttttaatg tgaatttttg 360
cctatcttta aacatttcaa tgtcagcctt tgtaacctt aaatacactg aattgaatct 420
acaaaagtga accatctcag acctttactg atactacaac ttttgttttc tgatggccaa 480
aatacctaata acctcgag 498

<210> 1500

<211> 334

<212> DNA

<213> Homo sapiens

<400> 1500

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gcgatgtgac atggcaaatg tagaactgac tttaattgaa caaacctca ctgagcacct 120
ctgatgttga gcacctgctg aatactgagc actgaatggg ggagggggag gggagcacgg 180
ggtgagtcaa cctgggactc ggtctcaggg atatgcctac caatagcggg tatcgttaag 240
catgtaccca aacataacgg atgtaaggca gaaagtgatc ggagaaggaa tgagaaagtg 300
tgctgtatgt taatgaaaag tctaacagct cgag 334

<210> 1501

<211> 220

<212> DNA

<213> Homo sapiens

<400> 1501

gaattcgcgg ccgcgtcgac aattctagtc ctctcagcaa cttaattata aaacaattac 60
ttctaatttc tcacttagtg ttggggaact ttgcttgga tttctaggg aaagaggaaa 120
agcagaggta gtggtagctt tgaaaatgtg gaaccttatg ctattatgta taacttcact 180
tcaatatggc ttacagaag acacagtcac ccaactcgag 220

<210> 1502

<211> 165

<212> DNA

<213> Homo sapiens

<400> 1502

gaattcgcgg ccgcgtcgac gggcagggtat tgaactctta agtacaaaat tattttccca 60
aagaatttta aaatatacta tcccactatc tttttgcac cagcattagt aattatagga 120
ttattgctgg ttgctaetct ttctgtctat cctcagtgtc tegag 165

<210> 1503

<211> 614

<212> DNA

<213> Homo sapiens

<400> 1503

gaattcgcgg ccgcgtcgat gtacatatatc ataagcatgc acacagacag acataaaaat 60
gataggatca tataagacat tgtatagact gttttatgat agggtaatac actttttctt 120
tctttttctt ctttgtccag ctcttctgtt ctttatccat atcatactct atccctactc 180
aaggaaacct agcaacatgt ttatagttcc atatgtctca ttatgtcat atgtcattta 240
catggtattt tatatacagg gtttacacat ttatagtaaa cgatctttat atagtttata 300
caatatctgt ttttcttttc tctgcaatac aaacgtgttt catatccctc aaacacaccc 360
acaccctca cttacacatg tgttatcact gtttgccttt gtaaacttgt gttcaacgta 420
tacacattaa tcattttaagc ataccttggg gaaatcctgc caacttgact actgtgcctc 480
caatttcttc ctttttatcc catcataata aacctggcaa taattgattc aaccatatgc 540
acattgatat cacttatgct gtttgtttat ttttactact acaaacatgc tacaacaaag 600
ttccgggact cgag 614

<210> 1504

<211> 329

<212> DNA

<213> Homo sapiens

<400> 1504

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gaattcgcgg ccgcgtcgac aggtaagtca ttttaattca cttttcaggt ttgttttggg 60
atttgtcttg gggcagattg ttaaggcctg ttttagaatc agctaccctt gcattgtaaa 120
tggggcttct aagagcacea gatcgtgggc tcttggctcc cggcaaggca gagctgatga 180
gagaagggtcc tttgccgcag cactgcagggc aggatgggtat agtttgggtgg tttcttgctg 240
tgtgtgtttc tctgtgctgg gtgagggaga cagctgggag ttggccttta tccagtggcc 300
gagagagctg tgggaaggat gagctcgag                                     329

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<210> 1505

<211> 306

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (23)

<400> 1505

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gaattcgcgg ccgcgtcgac agngaaatct gcctcctcca tgtctcaagc cacgtggaat 60
aaattgtgga aagacctgtg ctgtctggct tgtgccttta cacatgctgt tatctctacc 120
tcaaagtctg tcttccccca ctggctaacc cttgttatcc tttataacag ctcagaagtt 180
gcctgctcaa agacactttc ttggcctgaa ttagaactgc cctctcacgt gctacttcca 240
tcacagatct taccatctat tatattatca catacacaca cacacacaca cacacacaca 300
ctcgag                                     306

```

<210> 1506

<211> 353

<212> DNA

<213> Homo sapiens

<400> 1506

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gaattcgcgg ccgcgtcgac ccttttttca cacaggtgat agaaatcctt ctaactcctt 60
gattctttca ctttatctta ctggtctcta catgtcagaa cacagaagtt gtgttttgtt 120
tcgttttgtt ttacagagct gtggttaagta ttggatgggc cattgttttg atgttttcca 180
tgttctgtcc tttcttagat ctattcgggg gcatttgggt tgtctccaat ttgttggtac 240
ttcaaacaat ggtatactca atacagtgtg ttagggtagg gatttttaca gaagaaacta 300
aacagccgtt agaaaattat ttttttacat taactcaacc agttattctc gag 353

```

<210> 1507

<211> 331

<212> DNA

<213> Homo sapiens

<400> 1507

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gaattcgcgg ccgcgtcgac ggaaaatgaa gctcttaag atatgctgta aaacagccac 60
agagttcaca acaccttata tcataggtgt tcatgactcc taaaagtctg taagcccaag 120
aagacaagac catatctttt tcttagttaa tcatgatgga agtattgtgc agatttttaa 180
actagcttta ttgtggttta attgacatac aataagttgt atatatttga agtatatagc 240
ttgataagtt ttgatatttg tataccaata aactcatgac gacaatcaga taatgaacat 300
atccaagacc ctcgagttaa gtgactcga g                                     331

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<210> 1508

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1508

gaattcgcg cgcgctcgac gaggtccccc ttttttctaa atttctctgt gtgcttttct 60
 cccctgcta ctttttccat cegttctctt tcaactcttg tctttttgca agtccctaaa 120
 gtatcatcca ttttgcggtg ttttatggg tctccctcat tcttttctcc tcagtttttc 180
 ctttttcttg ctgtcttggg gagcttctgc atgtgaccaa attctcgag 229

<210> 1509

<211> 551

<212> DNA

<213> Homo sapiens

<400> 1509

gaattcgcg cgcgctcgac ccaacagatg agtctttttg gtactagata gggaagagtg 60
 aatgtcctgt gttgatatag aattgtttta gttatctgtc cctgtcttaa tttctctgca 120
 tatttagtgt aattatcttc ttgatctatg ttgtcttagg atgcaagggg gaatttgagc 180
 atccttctct caatctttcc ctctatcag agtctcagaa tccactcttc tattccatt 240
 tgactaaatc ataggcatct aagaggggag cactccgccc cctactaac tagcagaata 300
 agactgacca gtttccaaact aatcaattac ttgagttacc atgtccggca gatttctact 360
 ttgctgtatc tctcaactct gttgccttgt tcatctccag caccactctg ccagtccagg 420
 ctttgatccg cacatagctg gactaactgc tcatctacct aatgtggctc attctccata 480
 gcactatcag attaatcttc ctaatgtggc acttgacccc tactactttc tgcctaaagc 540
 acaacctcga g 551

<210> 1510

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1510

gaattcgcg cgcgctcgac gcttttttaa aaaatttcag aactgtgtac tgtgatgaa 60
 ctgctgacga atcctcagga attaatgtgc atcaaccac tgcttttgct cacaagttac 120
 ttcagctctc tggagtgtct ctcttctggg atgagtttct tgcacagcc aaatcttccc 180
 cagtgtgttc aactgcacca gtggaaactg agccaaagct ctacactage tggaaaccca 240
 aaattattta tgagccacac cccacagctc gag 273

<210> 1511

<211> 291

<212> DNA

<213> Homo sapiens

<400> 1511

gaattcgcg cgcgctcgac aattatcata ttttccataa agagagcatt gatttcatcc 60
 attggcatat tgagatgctt tctgttttga cattgggtcac agaattttaa aggaaaaaca 120
 acattactgc acattcagga atcagaaata gaagtaaagg tcaggatctt aaagggaatc 180
 ttgacaggat atcaggcctg cttttaaaaa aattcagaca tgataagttt actaccaatc 240
 attttttcaa taacaacaat aatatattta tattttccca tggaaactcga g 291

<210> 1512

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1512

gaattcgcg cgcgctcgac cgcgtttcag cgaagtcgca ogtgaaggat agcagtggcc 60
 tgagaaagac ccagtcattg cagcctccag catcagttca ccatggggaa agcatgtgtt 120
 caaagccatt ctgatggctc tagtggccct tatctctctc cactcagcat tggcccagtc 180
 ccgtcgagac tttgaccac caggccaaca gaagagagaa accctcgag 229

<210> 1513

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1513

gaattcgcg cgcgctcgac cgcgcaccga aaatctgttc tgacatgaga atgttcacaa 60
aagacagcac ttctcgactt ctgctgataa gcttgggtct cgag 104

<210> 1514

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1514

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agggttaaaa aatccatatt ttctattact cctcttctag gttctgagtc ttctggtagt 120
gtagggtcat ctacaggctc tctttctcac atccagcagc ctcttcagg tacagctctc 180
agccagtctt ctcatggcgc acctgtgcgc tatccaactg tcagcactca tagttctctt 240
tcctttgatg gtggcctaaa tgggcaagtc gcactctcta gcactagctt ctttttgctt 300
cccttggaag cggcaggcat accacctggc agtattctga tcaaccact tctogag 357

<210> 1515

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1515

gaattcgcg cgcgctcgac ggtatttgc tactgtatta acttcgacca tcccaataga 60
aacgtgccaa taaatcattg atgatcttta attgctgcct gtacgggtgca ataataccaa 120
tatcagaggg actgcatcca gccttaacaa aaatggaggt taggaanaact atgagtttgg 180
cttctgttac attgctcacc accacctttt tcaacttgtt ctggcgtctg actcgag 237

<210> 1516

<211> 543

<212> DNA

<213> Homo sapiens

<400> 1516

gaattcgcg cgcgctcgac cgaggacaga agatagaaac aagagtttga ggtttgctt 60
tgattagaaa cttgggtggc tcaaaagaaa cttaccagaa gcacagtagc tgtaggtttg 120
gggtcccaaa aggttagcct gagcttttta gggctaaaac tgggaagaa acacctaaac 180
tgtgctttta actaaattta tgactgagct tctgccatgt ggtgatttat agtatgtgct 240
ttcagattcg cctactttta atcatgaaag cttcattcta tagaccacca cctgtgtgat 300
gtccttgttc tcaaagacga tttaaacttg gactgttttt ccagtaaaa gagatttgc 360
ttcagaatgt cgagtgtatt cataacgyat ggttcttcat tacttacaaa tttttgtaat 420
taatcttctg atgaaacaaa aagctatgat gttgctgtta atgtgtattt gatagatatt 480
ggttgacaaa tgcaggctaa atgggatgtg gcaatacttt ggggccagat atagaggctc 540
gag 543

<210> 1517

<211> 431

<212> DNA

<213> Homo sapiens

<400> 1517

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tggggtcctg gattcctctt tctcttacct cccatgttct attcattagc aactottgtc 120
agtatagctt tgaaaataag ttggattact tctaactacc tgttactgct cttgactttg 180
gacaatatgt tatcaaccag tgaccatttg aaagtataca aattatttga cttacttgag 240
caaaatcttc cgttggttc tctctcacc cggaatccag cttgaagaat aaccactacc 300
tacatggccc tgcgctgcgc ggtccggac gccatcttgg cctcagctcc caaagcacct 360
tcccctotca cgtgtctcca gctgcgcgc gtgctctctc ttactcttac gggatacccc 420

acccccctcga g

431

<210> 1518

<211> 361

<212> DNA

<213> Homo sapiens

<400> 1518

gaattcgcgg ccgcgtcgac gggagggtcaa agctgcagta agtcaagatt gcaacgctgc 60
actccagcct gggtagacaga gtgagaccct gtctcgaaaa agaaacatac ataaggaata 120
tattgtctca gatatactaaa gaatccagga gtacacctgg tgttggccac tgggtgatgt 180
gggtgtgaaa caatctttct ccattcttta ggtctactgt tttctgtgtc tctctcattt 240
taagatagac ttttctaagt aaaagtttac tgtttccagt ggaaggaagt tgctctcttc 300
caaacagtac caataaaagt tccaaggctg actcatgggt ccaactatag cagtgtctga 360
g 361

<210> 1519

<211> 274

<212> DNA

<213> Homo sapiens

<400> 1519

gaattctgga gtcaaataca ccaagtcgga cttgcgggtta atcgaagtca ctgagaccat 60
ttgcaagagg ctcttgatt atagcctgca caaggagagg accggcagca atcgatttgc 120
caagggcatg tcagagacct ttgagacatt acacaacctg gtacacaaag gggtaagggt 180
ggtagatggac atcccttatg agctgtgga cgagacttct gcagaggtgg ctgacctcaa 240
gaagcagtgat gatgtgctgg cgacgagttct cgag 274

<210> 1520

<211> 687

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (21)

<400> 1520

gaattcgcgg ccgcgtcgac ntacgcattg gcaactctgag ttcattaggaa gatagttaa 60
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agtccagttc attattttga cagatgcatt tcaagtagag ttgccagaca aaatatagga 180
ttttgagtta gattagaatt tcagataaac agcaataaat tgttttaata taagtatgtc 240
cgccaaactg tagatatact gaaagctatt gctgtttatt gaatcaaaat ttaattgggg 300
gtctgtaatt cagtttgcca aatctggctc ccctagtctc acacaagtta atttcttgca 360
cattgtgata taggaggctg gataccatag atacggtaga gttgtacatt atccaggctg 420
cctgagtcct aaccagtat ccattcctaa ggtcttatga ttaggataaa agattttcta 480
cttcagcaca aagtgccttt tgaaaatttg tgatgattat ttctggaaat ctgtcccatc 540
ttagcattgc tagagttggg ttatcatgag acataactca agagaaatta gctatactga 600
gatcatttta tcaaaggtag tctgtacata ggcaatttga tatgtcccaa gtctgcctcc 660
aatgtcaggt gagttcccaa actcgag 687

<210> 1521

<211> 132

<212> DNA

<213> Homo sapiens

<400> 1521

gaattcgcgg ccgcgtcgac gagattgtgc cctctcttctc attctctccc aatagatctc 60
atgtctaaca ctactctaac tttgtctccc tctgagacca gcatgaactc cagttcttctc 120
tggcctctcg ag 132

<210> 1522
 <211> 324
 <212> DNA
 <213> Homo sapiens

<400> 1522
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 atgtttgaat tccttagaat gatcaageat cttttttgtt gttgggggtt ggttttttgt 120
 ttgggtttgt tttgtttgag acagagtttt accctgtcac atgggctgga gtgcagtggc 180
 atgggtcatgg ctcactgcaa ccttgacct ctgggctcta gtgatcctca gcctccccga 240
 gtagctgaga tcacaagtgc taatttttga aaaattgttt gtagagacag ggtcttacta 300
 tgttataagc ccaggcctct cgag 324

<210> 1523
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 1523
 gaattcgcgg ccgaggcaag aagttcccggt gtatacagat tctgaacctt ggcaagaagt 60
 tcccattgtg tcagaccctg aacccaggca agaagttccc acatgtacag gccctgaatc 120
 caggcaagaa gtcccatgt atacaggccc tgaatccagg caagaagttt taatacggac 180
 agaccctgaa tctaggcaag aaattatgtg tacaggccat gaatccaaac aggaagtccc 240
 catatgtaca gatcctatat ccaagcaaga agactccatg tgtacacacg ctgaaatcaa 300
 tcaaaaatta cctgtagcaa cagattttga atttaagcta gaagccttca tgtgtacaaa 360
 ccctgaactc gag 373

<210> 1524
 <211> 242
 <212> DNA
 <213> Homo sapiens

<400> 1524
 gaattcgcgg ccgcgtcgac tcgagattta ctggcaactg ttcttttccc atcaaaaatc 60
 agtgaatgtt tgctgagtat aaatgctgct tccttaaac accctgtcgt ttaggatcaa 120
 ctttacctgt accttttctc ctttctctcc ttgccacctc aggtgcaaat ctgaactcag 180
 tgtctgcttc ttccatttcc tcgtctctct cccctcttcc cccatccccg gtttgctcag 240
 ag 242

<210> 1525
 <211> 527
 <212> DNA
 <213> Homo sapiens

<400> 1525
 gaattcgcgg ccgcgtcgac cttgaattct aaaagccaga gctggaaata accgaaaagt 60
 cttaagggaag tgtgctgctg tggctgccaa taaaataaag ctaatgagt atgtagaaga 120
 gaattctagc tctgaaagtg tctgttctgg tcgggaagctg cctcaccgca atgcttctgc 180
 tgtagctaga aaaaagttat tacataattc tggaagatga acagagctta aagtcagaaa 240
 ttgaagaaga ggagctaaaa gatgaaaatc aaccattacc agtgtccagt tctcactcgt 300
 cccagagcaa tgttgatgaa tctgaaaaca gagactcaga gtcagaaagt gatttcgagg 360
 tagccccgaa aaattggcat gctaattggt acaagtccca tactccagca ctttcaaga 420
 caaaatttct taaaatagag tcttctgagg aagactctaa aagtcatgat tcagatcatg 480
 catgtaacag aactgctggc ccataacgt ctgtgcagag cctcgag 527

<210> 1526
 <211> 388
 <212> DNA
 <213> Homo sapiens

<400> 1526
 gaattcgagg ccgcgtcgac ttcacatcgc tactgttatt atgtattttg ttagcaccat 60
 tgccaatgtc tgggttggtt ccaatacggg agatgcatca gtaggtcttt ggaaaaactg 120
 taccaacatt agctgcagt acagcctgtc atatgccagt gaagatgccc tcaagacagt 180
 gcaggccttc atgattctct ctatcatctt ctgtgtcatt gccctcctgg tcttcgtgtt 240
 ccagctcttc accatggaga agggaaacgg gttcttcctc tcagggggcca ccacactggt 300
 gtgctggctg tgcattcttg tgggggtgtc oactacact agtcattatg cgaatcgtga 360
 tggaaacgag tatcaccacc tgctcgag 388

<210> 1527

<211> 161

<212> DNA

<213> Homo sapiens

<400> 1527

gaattcgagg ccgcgtcgac gagctagggg acgggtgcag gcaggaaaca gaaacaacac 60
 agctacacat tcttgagata actctggtct ttatactgaa actaaccaac taagaaaatt 120
 attcaatgca ttatacatcc ttaatcccca caacactcga g 161

<210> 1528

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1528

gaattcgagg ccgcgtcgac atcctaagca catacgcata tttaaactgg caccaagctg 60
 ttaattatgt taatgccttt atggcacaac aatgtaaaat ttactattaa cttggggggt 120
 gacctaaaga gctggcaaat ctccctatc ctccctatc tggctatctt gctgggcttg 180
 caatgccagg gctacttag aatagccaca gccacacatg agcatcatgg gagacttctg 240
 ggggcaactt cagcttcttc ctctaaaatg attcccgact ccagatcct cgag 294

<210> 1529

<211> 452

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (424)..(427)

<400> 1529

gaattcgagg ccgcgtcgac agatgtcaga ggatttagca aagcagctgg caagctacaa 60
 agctcagctc cagcaagttg aagctgcatt atctggaaat ggagaaaatg aagatttgc 120
 aaaattgaag aaagatttac aagaagttat agaactaac aaagacctc tgcactca 180
 accttctgag acgcttgcaa gtccagacag ttttgcctct actcaacctc ctcatctatg 240
 gaaagtagga gacaagtgtg tggcagtcgt gactgaagat ggacagtgtt atgaagcgga 300
 gattgaggag atagatgaag aaaatggcac cgctgcaatc acctttgctg gttatggcaa 360
 tgetgaagtg actccactgt tgaacctcaa gcctgtagaa gaaggaagga aggcaaaagga 420
 ggannntgg caacaaaccc atgaacctcg ag 452

<210> 1530

<211> 369

<212> DNA

<213> Homo sapiens

<400> 1530

gaattcgagg ccgcgtcgac ctgaagtaac caacaactag gtctttgtta gctaagcagt 60
 gtataagtta ttaacaaaac tcaaaaacag ttaactgtgg ttggaaatat tcattctaaa 120
 aatcaattta tgaataataa aaactcacca aaaaaatcat caagtaagta gaggagacat 180
 aattggctga aaataaacta ggagagaaaa aaccctctaa acccccttaa aactccaaat 240

cctctttttt cgattgttca tttttattgc tttgtttatt ctttcatggt tcaaattcct 300
 ttagtatttt ttttaattgc aaaagcaatg agtgaggctt tcgggaaaag cagaaacgtt 360
 gggctcgag 369

<210> 1531
 <211> 211
 <212> DNA
 <213> Homo sapiens

<400> 1531
 gaattcgcgg ccgcgtcgac ctcgagagtt tcctttgaga acattatact attggctcta 60
 gtctccaaac caataaaaaa ctaaaacttg tttccaagac tgggaggtta agtaggctta 120
 taaaacaata cagcaaaaaga aagccaagtg gcctaattgt ttccagtgtg cttgccatct 180
 tagcatggtt actttccaga tgtcactega g 211

<210> 1532
 <211> 211
 <212> DNA
 <213> Homo sapiens

<400> 1532
 gaattcgcgg ccgcgtcgac gtcgattgaa ttctagacct gccacatcaa tctcacgggt 60
 gattacaaga tttccagaag cctgaacaa ttcaatttca accatgcctc tagaacatcc 120
 tctcttcaca aaaaacccaa ccttatctgc tcgtcccatg aaagcagggt ttccagctaa 180
 accaaggcaa atggcacaca caaaactcga g 211

<210> 1533
 <211> 447
 <212> DNA
 <213> Homo sapiens

<400> 1533
 gaattcgcgg ccgcgtcgac caaggagact aagatgcaga aacccccactt acctttatct 60
 caggaaaaagt ctgcaattaa aaaagctagc aaccttcaga aaaatanaac cgctagctcc 120
 acgacaaagg agaaggagac aaaactacct ttactttccc gtgttccaag tgctgggtcc 180
 tctctagtac cattaaatgc taaaattgt gctctccag tttctaaaaa agataaagag 240
 cgttcctcat cttaaagaatg ttctgggcat tctacagaat ccaccaaca caagggaacac 300
 aaagcaaga ctaataaggc cgatttcaat gtatcttcag ggaaaatttc tgggggacct 360
 ttgcgctcag aatatggcac tctacaaag tctccccctg ctgctttgga agttgtgcca 420
 tgtatcccaa gccatgcagc actcgag 447

<210> 1534
 <211> 150
 <212> DNA
 <213> Homo sapiens

<400> 1534
 gaattcgcgg ccgcgtcgac gtgggaaagg agggaaagaa ggaagatttt ctgatgaagc 60
 catgcctgag aggtaatgac aactaggagt tagtcagatt agtgcttggg tgaggcctaa 120
 gaaggcactt atgaagctga gaagctcgag 150

<210> 1535
 <211> 253
 <212> DNA
 <213> Homo sapiens

<400> 1535
 gaattcgcgg ccgcgtcgac ctttagagac caatttgctt gaattttaaa atcttcttac 60
 acacatctag actttcaagt ttgcaaatca gtttttagca agaaaacatt tttgctatac 120
 aaacattttg ctaagtctgc ccaaagcccc cccaatgcat tccttcaaca aaatacaate 180

tctgtacttt aaagttatct tagtcatgaa attttatatg cagagagaaa aagttaccga 240
gacagaactc gag 253

<210> 1536

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1536

gaattcgcgg ccgcgtcgac gcaacatggc gtccaggtct aagcggcgtg ccgtggaaag 60
tggggttccg cagccgcggc atccccagc ccagcgcgac gaggaagagg aaaaagaagt 120
cgaaaatgag gatgaagagc atgatgacag tgacaaggaa aaggatgaag aggacgaggt 180
cattgacgag gaagtgaata ttgaattcga agcttattcc ctatcagata atgattatga 240
cggaattaag aaattactgc agcagccctc gag 273

<210> 1537

<211> 347

<212> DNA

<213> Homo sapiens

<400> 1537

gaattcgcgg ccgcgtcgac cctaaaacag cgaacaccag tgcactcacc attcgctctc 60
caactactgt cctctttact agtagtccca tcaaaactgc tgtgtaccc gttccacaca 120
tgagttctct aaatgtggtg aaatgacaa caatatccct cacaccagc aacagtaaca 180
ccctcttaa acattctgcc tcagtcagca gtgctacagg aacaacagaa gaatcaagga 240
gtgttcacac gatcaagaat ggttctgttg tgtcgttcca gtctcctggg tccaggagca 300
gcagtgcggg gggaacatct gctgtggaag tcaaatgga tctcgag 347

<210> 1538

<211> 287

<212> DNA

<213> Homo sapiens

<400> 1538

gaattcgcgg ccgcgtcgac ctggctgatg gagcacgaag acgaccccga tgtggacgag 60
ccttttagaga ctccccttgg acatatcctg ggacgggagc ccacttctc agagcaaggc 120
ggccttgaag gatctgtgtc tgctgcggga gaagcaaac cgctttgagt gaagaggaaa 180
gacaggaaca aactaagagg atgttggagc tgggtggcca gaagcagcg gagcgtgaag 240
aaagagaggt acgggaggca ttggaacgtg aacagcaaca tctcgag 287

<210> 1539

<211> 298

<212> DNA

<213> Homo sapiens

<400> 1539

gaattcgcgg ccgcgtcgac cgttgaaatc agcattcaga gcaacttcca gccagggaatg 60
aaattggaag tggctaataa gaacaacccg gacacgtact ggggtggccac gatcattacc 120
acgtgcgggc agctgtgtct tctgcgtac tgccggttac gggaggaccg cagggccgac 180
ttctggtgtg acgtagtcat cgoggatttg cccccgtgg ggtggtgcac acagaacaac 240
aaggtgttga tgccgcggga cgcaatcaaa gagaagtaca cagactggac aactcgag 298

<210> 1540

<211> 425

<212> DNA

<213> Homo sapiens

<400> 1540

gaattcgcgg ccgcgtcgac ggagagagca cttgcagggg aactcccatt tataaaacca 60
tcagatctca tgagacttat tcaataccat gagaacagca tgggggaact gcctccatga 120

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ttcaattatc tccacctgyc cccacccttg acacatggga attgtaacaa ttcaagatga 180
gatttgggtg gggacagagc caaaccatac aattcttccc tggccctccc aaatctcaag 240
tcctcacatt tcaaaagcaa tcatgccttc ccaaagtcc cccaactct tatttcagca 300
ttaactcaaa attccatagt ccaaagtctc atctgagaca aggcaagtcc cttccaccta 360
tgagcctgta aaatcaaaag caagtgagtc attttctaga tacacaggga tacaagcctc 420
tcgag                                           425

```

<210> 1541

<211> 347

<212> DNA

<213> Homo sapiens

<400> 1541

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gaattcgagg cgcgctcgac ttatacttct gctacctgtg gtctttgtct ctttaccctg 60
aagacctctt tgcttgttcc acttaggtcc tgccctccaa ctctcctgcc ggtgtcagcg 120
gtgaccttta ttcattgggtc cagtggacaa cctaagtctg tctttctgca ttctacaact 180
tcatttggca gtgttgactt ttccccactc ttgaaacac tcaactgtgg ttctcttggc 240
aggatgttct tctttccctc cccccacccc ttttcttgc cctttccttc actgtctgtt 300
tcgttttttt tcttctaccc agcactgaaa cctgggtgtt cctcgag 347

```

<210> 1542

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1542

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gaattcgagg cgcgctcgac cggaagaaag tgcattggtg cagcttgctt gaaaataaca 60
ttgctttgtc tgttctacta ctctacatta ggggagaatt tcgatcgcca ggccagcctt 120
cggcgggtct taatttacac agacactctg gtaagacgac cgaagaaagt caaaaggaga 180
aagactatta caggagtccc tgacaacata cagaaggagc tagcatcagg cactggcaca 240
gatgatgctg atggccactc agtgtacacc cctgatctcg ag 282

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<210> 1543

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1543

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gaattcgagg cgcgctcgac agcgttccct ttgctgctc caccaccgtc actgttctct 60
ttccaaggag aacatcagtc ccattggatt gttttcttca ctagtctgatt cccagggtct 120
ggagcacaga aggcacccaa taaaagtcat ctgaatgagc caattccttc tccatttttc 180
catgtggcta tttaaagcaa ctgtctactt tctctccatc ttcaacctcc cccacctctc 240
agatgcctcc tacctcagag gagaaaataa atgtactctt cttcaactcg ag 292

```

<210> 1544

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1544

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gaattcgagg cgcgctcgac gtcaggggaa ctaaaaaaga aaaaaacagt cttgcttgca 60
gcaggtgtct catgcactac tttcttcaat cttttgtgc catagtggga atctggacct 120
ttgagtgttg cacatgctgt gtagcacaca ttgggcagga tctctatggg ttccttgaac 180
atgacctga atgtgttagc tgtcccatca cactcgag 218

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<210> 1545

<211> 452

<212> DNA

<213> Homo sapiens

<400> 1545
 gaattcgcg ccgcgtcgac actgaggagg tttgaggcgc gcgcctctggg caggaagcct 60
 cccagccttt ctgaggatga tatctggcta aaaagcgagg gagacaacta tagtgccacc 120
 ctcttgagc ctgctgccag ctctctttcc ccagatcaca aaaacatgga aattgagggtg 180
 tctgttgag aatgtaaaag tgttcttgga atcacctcta ccccatcc catggaccat 240
 cctccgctt tctattcacc ccgcataat ggctcctta ctgatcacca cgaatccctg 300
 gataatgatg ttgccagaga gatccgctac ctgatgagg tgctagaggc caactgctgt 360
 gattctgtg tggatggaac gtacaatgga acatccctcc cagagcctgg tgcagtgggt 420
 ctgggtggcg gcctaagccc cctgtctcag ag 452

<210> 1546

<211> 449

<212> DNA

<213> Homo sapiens

<400> 1546
 gaaattcgcg gccgcgtcga ctttgatttt gggttgacgg cttctggagc ctctcagaga 60
 tggatggggc caaatactgc acccaggctt ccccatcaga atcagcacag acgcacctgc 120
 atctaccatg tagtcttcca cagtatcttc tgggtgggatg ctgggtgggt gccaaatttt 180
 cactaaagcc aaccatgagg agaagcacc tgggtctgtg cctccctgtg ggtatagtcg 240
 gtgtttatcc agaactagaa gtacaatag caagggaaga tacaatagca agcattgctg 300
 aatgctacag tgaacactc tgaggcttt tgtgaatgaa ttcatttagt ccttgtaaac 360
 ctctgggggt agctcaccat tctgtctcca ttccacagat ggagaatgag gcacagagaa 420
 gttaagtaac ttgcccaact tcaactcgag 449

<210> 1547

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1547
 gaattcgcg ccgcgtcgac ctgtggatca tttagctgca gtctcttttc ctacaacctt 60
 gattagatca tataagttcc agaagggoat gccaccacga attctcttta atactgatgt 120
 agcccttttc atcagtgaact ttactgcttt tcagaatgta gtctgggttc tcgag 175

<210> 1548

<211> 211

<212> DNA

<213> Homo sapiens

<400> 1548
 gaattcgccc aaagaggcct agtaaggaaa aaaatctggg ctgttagagt gaaaaagtgt 60
 gttttatgtc aattgtgaaa ggaaaatgtt aggagtatgg tttttaaaact tgggttcat 120
 tttaaaattt ttttttttaa acccagttat ttcacttgat ttgctagctt cagagaagag 180
 atccgaatct gtgccagcg ctgggtcga g 211

<210> 1549

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1549
 gaattcgccc aaagaggcct agtcaggga ctgttttagg tagagtgtac aaagaaacca 60
 caagtaatcc tgatgggttt acacttaaaag aaacctgtt gggtatgcag agaacaggat 120
 aaaaattata aaataagaga ttggaatatg aagtattttg cottaatatt tttcaatttc 180
 agcctctctc tctctcagtg tctctctctc atgtctttct ctcaagcagg ccaactcgag 240

<210> 1550

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1550

gaattcggcc aaagaggcct acgattgaat tctagacctg cctcccgcct cattgcctgc 60
 cctttcccct ctcagtgage ttctgcaaca ctagagtctt ttgtgcaccc tatatacatg 120
 agacactttc ttgccttgag gcctttatgc atgggtgttt tctgttctcg gtatgctttc 180
 ctcccttccct ttgtctggc taagctcgag 210

<210> 1551

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1551

gaattcggcc aaagaggcct aagattgaat tctagacctg cctggccttg tatgttttaa 60
 gagttttaca attttatctc ttatgcataa atctgtgatc catttgaagt taatttttgt 120
 tttgttttgt ttgttttgc ttgttttttt ttggagatg gagtctcact ctgttcccca 180
 ggctggagta cagtgtacag tggcacgac tcagctgacc acaacctctg cccccatct 240
 cgag 244

<210> 1552

<211> 254

<212> DNA

<213> Homo sapiens

<400> 1552

gaattcggcc aaagaggcct agggagtggc actaaggatc aagtatcttg ttaaaagaaa 60
 acaaaaaccc aagcatgagg aaggcgggtg ccacgtctat gtgggcttcg tgcgtgggc 120
 tgctgaatga agtcattgga actggagctg tcaggggcca gcagtcagca tttgcaggag 180
 ccaccgtcc attcagattt acaccnaacc ctgagttttc cacctacca ccagcagcta 240
 cagaagagct cgag 254

<210> 1553

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1553

gaattcggcc aaagaggcct cccgacaaga gcaaaactca gtctcaaaaa aaaaaaaaaa 60
 aaaaaagaaa tagaacatct catccacatg tccatatcca ctaactggat ctttgttttg 120
 ataactctct tccctttctc tgcaggttta ctcccagtat atccatttct acctgagcca 180
 ctcgag 186

<210> 1554

<211> 239

<212> DNA

<213> Homo sapiens

<400> 1554

gaattcggcc aaagaggcct aaacagatgt taaaatattc agtgaaagtt ttattggaaa 60
 aagggaattga gatataaat tgagatttgg tgaattgaa ggagaaaatt taagtgagtc 120
 tttaaaatat attctgaatg aaaactgtat tgaggattca tttttgttcc ttttttttct 180
 ttttctcttt tctccttttt cttcttttta atagtctagt tttaggcagc cacctcgag 239

<210> 1555

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1555

gaattcggcg cgcgctcgac ccagatgaga ctgtggctgc agccagtgc ttgctggtaa 60
 cttgtgagag atgctgagcc acaggacctt gctaagtggc atccatattt cagatccatg 120

gtaactgtaa gttagtaaac ttgtttgttt taagccacta aggtttgggg taatttgta 180
 tgaagcaata aataactcat atgccaacta tgtgccaggc actattcttg gctctgggga 240
 caactcgag 249

<210> 1556
 <211> 210
 <212> DNA
 <213> Homo sapiens

<400> 1556
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 tgagttggaa tgagaaatat tccacttgc aaaattttct tcagcttttt aactttttac 180
 aatctcaaca ggtcaaaggc agatctcgag 210

<210> 1557
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 1557
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 ccattgggtt gcttttgatt ccaaagtctt cacattcaag caataacca cgagatgata 180
 ttgtacaga agcatatgag gatgagctag acatgggccc atctggatcc tacctgaaca 240
 gcagtatcaa ttcagcctgg agtgagcata gcttggatcc agaggacatt cgggacgagc 300
 tgaaaaaact ctatgcccaa ctggaaatat ataaaagaaa gaagatgac acaacaacg 360
 ccctcgag 368

<210> 1558
 <211> 474
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (19)..(23)

<400> 1558
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 cttactggct gagagacttg ggcaaattat ttaaccttcc tgtgagtatt ctcacgata 180
 aaatgggagt actgacagta ctgtatctcc tcagaggatt gttgcaaaga ttagcttcag 240
 taatgtgcac agagtactta ggacaatacg aagtgtgcag taatacattg ccattaaaaa 300
 gagatctcgg gtgtccgagg gttgccgaat ggagctgagc atcttgatgg aaccagggat 360
 ctcagggtga agactgaagc cctaggctat ggcggaagtt ggtgcctga agtacaagt 420
 gaaatatgcc aactgaaccc taaaccgtcg attgaattct agacctgcct cgag 474

<210> 1559
 <211> 128
 <212> DNA
 <213> Homo sapiens

<400> 1559
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 taatcacatt ttttgttctt cattctgttg atttatcatg ttattgttt tgtgtatgtt 120
 ccctcgag 128

<210> 1560
 <211> 250

<212> DNA
 <213> Homo sapiens

<400> 1560
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 caagtcaata atgttttcaa gcattcttagc agcttttctt ttcttatctt ccagttgttc 180
 tgctgattgt ttctatcttca ttccaacagc tgtactaaac agtgcagtgc catgcccatt 240
 tgctctcgag 250

<210> 1561
 <211> 229
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (21) .. (22)

<400> 1561
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 gcatatgtga aaaatggaca tatgctctgg tttttttttt tttttttttt caatagagat 180
 gggatttttc tatgttgccc aggatgggtc cccaacttct ggctctcgag 229

<210> 1562
 <211> 209
 <212> DNA
 <213> Homo sapiens

<400> 1562
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 ctgttattct ggcttttatt tggcttttcc tagcagctgc ttactagca gtcacgggtt 120
 cagggaagagc tgaaggaata gaagaattat tgatgttggg gactggacaa ccctttttgg 180
 caaattttaa tgcaaaatat gcactcgag 209

<210> 1563
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 1563
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 tgatagttca ggaccattca gaccccatgt tcagttcata tgcctataag tcccactacc 180
 tactgaatga atcaaatcgt gctgagttga tgaattacc tatgattcct tcttcgtcag 240
 cttccaaaaa gaaatgtgag aaaggtaata atctcgag 278

<210> 1564
 <211> 234
 <212> DNA
 <213> Homo sapiens

<400> 1564
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 ttcacgagct tcatgtgtac aagtgtgatg agaattagcac gtttaataac catgctctgt 120
 acctgggcct gccctgctgc aaagaggact acaatggctg ccctaattatt ccttctagcc 180
 tcatcttcca gcgcagcacc aaagagtctt tcttcatctc cactacagct cgag 234

<210> 1565

<211> 294
 <212> DNA
 <213> Homo sapiens

<400> 1565
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 tttcttaggt gagcggaata ataaaggcct ttaaactctt catccacaaa tacaagcatg 120
 aaaacttga cactttttaa aaaaatttcc ttttttatgg cgggtgaggt ggaggtttca 180
 ctgtgttgc taggtgccc tcaaattcct gggctcaaag gatccgccta cctcaggctc 240
 cctagtagct gggactacag gcacatgcca ccgcacctgg ctctcccact cgag 294

<210> 1566
 <211> 203
 <212> DNA
 <213> Homo sapiens

<400> 1566
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 gtcagcctcg tggaaaccag ggggtgtgtca tggtaagcag tgggtggtagt gcacctagct 180
 tttatattat cactgcctc gag 203

<210> 1567
 <211> 241
 <212> DNA
 <213> Homo sapiens

<400> 1567
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 ggcagcctc acagctgctc aacaagaagc tatggaagag ttacagaaaa aaattcagct 120
 caagcatgat gaaagtattc gaaggagcat ggaacagatt gaacaaagaa aagaaaaagc 180
 tgctgagcta agcagtgggc gacatgcaaa tactgattat gcccccaaac tgacctcga 240
 g 241

<210> 1568
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 1568
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 agaatgtctg aacacatggt tggcaatcag aaagtatttt ctccaacctc ccttcccaaa 120
 cacacctctc aaaacctttc ttttccattc taccactcag tttcatctct cctggactac 180
 tgctctccga cagggttttc agccttttct ctactactcc ttcaaacat cccaaacctg 240
 ctattacaaa caacattcaa aaatcagaaa tttgatcatg gcactccctg tcacaaatcc 300
 tcctatggtg ataacattca gaacaaatct gcattcagag aaagtccacg tgtccctcgc 360
 ctccag 366

<210> 1569
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 1569
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 aattgatact cttaacgagg gaaggcaagc acctcatgaa aggttttgtt tgtgttttct 120
 tttttctttt tatctctgtt tctagagaca gcaaccttat cagtccagca gatcttaata 180
 gactagaaag aagccaggag agtattaagg aactcttaac acaagagaat ctccag 236

<210> 1570

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1570

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gaattcggcc aaagaggcct agcaagattg tttcttgga acagctgtat atgaaatggt 60
gattctcagg gagacaccta gacacctgaa ttgcagcaga ctttttatgg tgttgctaag 120
ttgctggtec tctcatcag tagcaggcct actctcactg tcacatatct cccacggctc 180
cgag                                     184

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<210> 1571

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1571

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gaattcggcc aaagaggcct aagatagttc acaatttatt cctgttatcc aagcctgcgt 60
aaacgggaat ttgctaagc aaattgggaa ttggggatta actaaagga attgtgagaa 120
agagaagaa caacttttaa gaagtatggt aactgtcata ttttcaacta aggggctcct 180
cgag                                     184

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<210> 1572

<211> 238

<212> DNA

<213> Homo sapiens

<400> 1572

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gaattcggcc aaagaggcct acgagatgaa tttctatgca ttattggaaa ataaggacaa 60
agtcttccta tttatcatgt tgtggattat tgatggaaga tgetgtggat tggctcagtc 120
aacatccact tcacctcaa acaggatgac ctctctgcaa agcaaaagga atcccaaac 180
ctcttgacgc tatagttgcc aaaagcaatt tcagttctgc caaccagagg gactcgag 238

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<210> 1573

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1573

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gaattcggcc aaagaggcct agattgaaag tgatacaatt tgaatattgg tatattgtca 60
ttggtcagta atggaaaaat gagattccac cagtgggtta ctcttttctt gtcttggtct 120
gctatgcctt atcccagatc agtgttttgt tccatcccta tggtcacetc taaagccctg 180
acaggagcat cccagactgg agaaatgcag caactcgag 219

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<210> 1574

<211> 236

<212> DNA

<213> Homo sapiens

<400> 1574

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gaattcggcc aaagaggcct aatttgcatt cccttagagt cttctatttc tgtttttacc 60
aaagcagctc tcatcattga aagcagcaga gctgttttgc tcttaattaa ctaatttaac 120
aaaaaccagg gatttatttc aatcttgaaa taattgcctt ctgtcgaaca gtttaaaatc 180
atacagttag caaaaattta agaataatct aatgaaaat tagaggggca ctcgag 236

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<210> 1575

<211> 199

<212> DNA

<213> Homo sapiens

<400> 1575

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 atttattaga cagagataac taatacaaat ttttcagtgg acaatatatt cctgtttttg 120
 gatattgctg tcattggaag actgtgccag aaggtaaagt aagggtgggtg taatgtttca 180
 tattagaaaa atcctcgag 199

<210> 1576

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1576

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 ttgcagggtta gctgaagtga aatcaagtca agaattattgt ctgaggaaat atcaagttac 120
 tgtaaaggta aatccatcaa gaatatctaa agtcagggag gaaaaaaaaa gaatttagtg 180
 tttatctatg tatgttactt catgattagt agatccaata tgagaattaa tgtggtgctc 240
 gag 243

<210> 1577

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1577

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 atcattttcca tgtcattaga agataagtgt atctttctga gggctaaagg tcatgctgag 180
 ctagaagggt gcaaggctgg agaggaagtg ccttctctcc agcgtcagca aaggctgcgg 240
 gcagggtctg ag 252

<210> 1578

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1578

gaattcggcc aaagaggcct agagagattg cttttctctg aatcatttca ttctagactt 60
 tcatcatctc ctgctaagtt gtaatgttac ctgtctcttc cttagtctct agcttatctg 120
 aattttattc tgttattgcc gcacaaatta ttatcaagtt ccactttggg ctgggcgcag 180
 tggctcaagg ctatagtctt agcacttttg gaggccgagg cagactcgag 230

<210> 1579

<211> 233

<212> DNA

<213> Homo sapiens

<400> 1579

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 taaccttgca gttctccatc cctcatcaaa tgccatcttc tgggatctgc ccattgcctt 120
 gtttgctctg ctacaccatca tgcttagcat cttttgggca ctacgtctg tttttggcct 180
 ctttactttg acatcatttt aactgtcact cttogaacac cttgaatctc gag 233

<210> 1580

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1580

gaattcggcc aaagaggcct aatttaaagt gctgcttttg attctctgga gcattatgca 60
 ttatagtgtt tatocaaaga cttttttgaa aatatgcaga aatttgtggt aattatgtat 120
 ttgtgtcttg tgacaattat gttttataga cctacactag tgccaggcca ctattgtaag 180
 atgttaaaat ctcaagaaaa tttcacagat gcaactcgag 219

<210> 1581
 <211> 199
 <212> DNA
 <213> Homo sapiens

<400> 1581
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 tattcctgat atcctatcat catctttacc aattcttggc aattatatcc ctgggcctaa 120
 gttcccatgt ttgtatcctg cctcataccc caagtctctc atgaagtggg gtccctgctt 180
 gctctacaca ggactcgag 199

<210> 1582
 <211> 272
 <212> DNA
 <213> Homo sapiens

<400> 1582
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 acgcagccac atctgcceta ttctccatgc ttccagctt gcctgccctt cctcatctct 120
 ccttgccctgt gcagacctcc acccttctct cctccacccc tccatccccc aatgcttgta 180
 gaccttccat tcattccgtc tcctcgtgct tggctctctga tcgtccatca cctgaccttc 240
 tccaggactg tcttctcacc ctccccctcg ag 272

<210> 1583
 <211> 408
 <212> DNA
 <213> Homo sapiens

<400> 1583
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 gctgacctgg cctgggctgc gtacaccttt gccctgcttt gccttaaaag ctcgggggtct 180
 gcccggcccc tcgcccctgc ctggcactgc tcaccgccc aggcgacgcc ggctggacca 240
 ggcaactgct gcctttctcc tggccggcct cggaaccagc tttctctct taccatgaag 300
 gctgatgcc agagcgggct gtggggcgag ctgggtcagt cccgtattta ttttgctttg 360
 agagagaggg accctaaacc gtcgattgaa ttctagacct gcctcgag 408

<210> 1584
 <211> 266
 <212> DNA
 <213> Homo sapiens

<400> 1584
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 tgtgcctggc agtgcctgact atgactactg tgccatctgt ctgtgacctt gatgtcagg 120
 acctggccat ggggctacca gcaaggatgt gcaaaggag aaccgctgcc cctgccctca 180
 gcttcttat gcccgagcca ctacttatcc gtgaatgtga gtgccaagag aaacctaat 240
 tgggtgggaa gccaggcat ctcgag 266

<210> 1585
 <211> 298
 <212> DNA
 <213> Homo sapiens

<400> 1585
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 gagttttgta ttgttaaact gtgtctggaa actaaacttt ataatgtgtt acattttagg 120
 tcagaagaca tgtcttcac tcacatggcat ctttccctac ctctatgtgc catagatgg 180
 ttatggacag cagccagaaa gctatcttcc tcagatggca ttcagtatcg acagagcact 240
 taatgtggct ttaggcaatc catcttccac tgctcagcat gtgttgatga aactcgag 298

<210> 1586
 <211> 276
 <212> DNA
 <213> Homo sapiens

<400> 1586
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 atgcttccca taccttttcc ttctattctg cttacgtaca atacttacct tgaaggttag 120
 cagtgaacac tccagtcac catgcatagt ggaagcttc aagaaataag aataataata 180
 aaaaagttaa aactataatg ataacttggc cgggcacact ggctcactcc tgtagtcccg 240
 gcgctttggg gggccgaggc gggcggatca ctcgag 276

<210> 1587
 <211> 186
 <212> DNA
 <213> Homo sapiens

<400> 1587
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 ttatttatct ggtctccaaa tcccacggtg tcaacaatgg ttaacttcag ccgtacattg 180
 ctcgag 186

<210> 1588
 <211> 427
 <212> DNA
 <213> Homo sapiens

<400> 1588
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 ctccatatca cagcagaagc tgcagtttca acagggtgtag tagcttgccc acaccttggt 120
 gactaagtgg gggcagcagg ttttgaatct ggggtggactg cagctggaac ccacatactt 180
 aatccatacc ctagaatcta ggtaggaaag agaacatgct ttatctgggg cccaggaaat 240
 gactgtggga ggcagtgcaa ggaattgagg ccagtgaggt gggcaggagg ccaatgatca 300
 cggcccttgg ttgcctttgc aatgcagttg ggtacatgtg acagtcattg aagaatgtca 360
 aaggtcaggg atgagattgt atgacatgat cagacctgtg ttttagccag atcactccgg 420
 gctcgag 427

<210> 1589
 <211> 410
 <212> DNA
 <213> Homo sapiens

<400> 1589
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 ttttgaatta ttctaccttt gtaacaatt ggctaaaaga atcatcttta agaaattaag 180
 ccatttacat gtttgtgttt ttctatagca gagcattata ttttgcatca tatgtttcaa 240
 cctagtctaa gtgggtottt ttacattttt tcaagaacgg atttcttgga atacagcgat 300
 ataatttttg ttgtcaaat cctaattgca ccatttagtc taaacttagt catttatttg 360
 tgacaataag atgtgttcag gggctccctg tttttaagag actcctcgag 410

<210> 1590
 <211> 318
 <212> DNA
 <213> Homo sapiens

<400> 1590
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agttctttgc tctcttttgc ttgaaaaggg cagatttctt taggcagtag ttaggaatag 180
 catcttgata tgagcaagat gaaacgtggc tgtcaaggga atcctctaaa atgcttttat 240
 ctccactatga agctattttt aaagttaca tgtttattac taattataat tttggttacg 300
 aaacaggaac aactcgag 318

<210> 1591

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1591

gaattcggcc aaagaggcct actctctttt aaataaactc cattcttccc attccatgat 60
 gtccctctaac tctgctctcg ctttttctgc tctgttttat tctccctca ctcctgtct 120
 cctggcattg ttcactcgc tgtgctccat tgccagaacc gtggaggaaa cccctcccg 180
 ctgcagecca cccctctcct tctcgag 208

<210> 1592

<211> 303

<212> DNA

<213> Homo sapiens

<400> 1592

gaattcggcc aaagaggcct agacagttca actagaagag actggtaaga gattgcagtt 60
 tgcagaaagc agaggtccac agcttgaagg tctgacagt aagagctgga aatccattgt 120
 gggtacaagg taggaacaga gttttaact tgtacaaagt ttaatcattt caaattttgg 180
 cattgtttta aaagacaaca ctattcttga taacctggtt tcttctgat gaacagtttg 240
 tttggttgtt gttttaacat aatacttttt ttctgttgta gtattgttg agactctctc 300
 gag 303

<210> 1593

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1593

gaattcggcc aaagaggcct actttaatgc ctttggcctt ccattctgat ttctctgatg 60
 agaataattgc tggccctgct ttccctggta ggtatttgcc aggcccaatg ctttaacctt 120
 aagctgatac tttgcttttag atgtcagctc cgttaccagc agccttttga cccaacaacg 180
 gcactcgag 189

<210> 1594

<211> 291

<212> DNA

<213> Homo sapiens

<400> 1594

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 atttgtatga atataggaaa gcacttgaaac ttttggcctg tctgtgtgcc ttcagaattg 120
 ggcagtggaa catcctgttg gaagcactgt catgtgggta cctcagagcc tgccctctct 180
 tttcagcctt acctcactgc acagctccag ccaaagggcc acgtgcacca aagggtcaca 240
 cctgaccagc ttttaatcat tccatacact gaaatgcctt cactcctcga g 291

<210> 1595

<211> 416

<212> DNA

<213> Homo sapiens

<400> 1595

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 gcccttctcc gaaacaagct gagccagcag cacagccagc ccctgccac ggggccaggc 120

ttggaaggct tcgaagagga cggagctgcg ctggggccgg aggcgggscga ggaagtcctt 180
 ccgaggttgg agactcttct gcagccaagg aaaaggctcg gcagcacatg cggagactcc 240
 gaggtggagg aggagtcgcc aggaagcgc ctggacgcag gtctcaccac cggctttggg 300
 ggtgcgagga gcgagcagga gccggggcgg gcctctggga ggaaggccac accccgacga 360
 cgctgtgcct ccgagtcacg catctctctc agcaacagcc cgctctgcga ctcgag 416

<210> 1596

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1596

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 acatcaatac ccattttgac gtgaatatct aaagtgttat gaaaccaact acatatattt 120
 ttaaaatgct ggggctcata cgtgaagggt gagcactgtg ggcaaatttg gaaagattct 180
 ctacatttaa agattattta agggactggt attatatgca caggataggc taaataatca 240
 gtcacaacag attctggagt gaactgggga gaagtatggg atagtgcaga gctcgag 297

<210> 1597

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1597

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 tccccacaca tcttgacctc cggttgtgga tataaacaga gacatttaga tgagcatgtc 120
 taatggtcat attaaactca gaatttggag actcttgagt ttctttcttt tttctttttt 180
 tttggagaca gagtctcgct ctgtcccaa gctcgag 217

<210> 1598

<211> 403

<212> DNA

<213> Homo sapiens

<400> 1598

gaattcggcg ccgcgtcgac cataccagaa ttttaggatt ttattttacc ttctaataa 60
 taattagttc taaatgtgtg ttaacccttt tttcccccac ttaagggtt tgtgttttca 120
 tatcttatct ttttggattg ctcttataat aatgaactct tectgtatag gtatgaaac 180
 accagaagaa caactggtgt gtgtgccacc acaggaggcc ttctctaacg accccgggt 240
 aataaataga cagagaagtt ctgattacca gtttccatcc totccattta cagacacact 300
 aaagggcacc actgaggatg acgtgttgac aggtcagggt gaggagcagt gtgtgccagc 360
 agcagaggca gagccgcctg cagtgcagct aaccacgctc gag 403

<210> 1599

<211> 117

<212> DNA

<213> Homo sapiens

<400> 1599

gaattcggcg ccgcgtcgac ggtgtagatg atgtttgggg tcaatttctt ctctgcctc 60
 ttcacagtgg gtcactgct agaacagggg gccctactgg agggaaacca actcgag 117

<210> 1600

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1600

gaattcggcg ccgcgtcgac cgagcatcct aggatatcca aaaggctaga gtttggagag 60
 gaaagttaat ctatttatga agtttaggaa aggcattctc gag 103

<210> 1601
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 1601
 gaattcgcgg ccgcgtcgac atcacgaggg cttcccttca gagagctgac aatattaaca 60
 gcacagagaa tactaggtct gttgattaaa actcaaggct tcatactgta agggccccc 120
 aggaagcatt aaattgggac ataggaagga caagtcacat ccagtttagt gatcaatggt 180
 gggttgggaa agaaataaca gaattctacc cctacatgat agggagagac tacagaggcc 240
 acctagacca acaaactctg ccatacaggtc cttgaatcat tgctaccatg tcctggtggt 300
 ggttgtagca ttgctagtga catgtaactc attacctact tatgcaaac tcgag 355

<210> 1602
 <211> 613
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (592)..(601)

<400> 1602
 gaattcgcgg ccgcgtcgac aaggagataa atatcttgcc ttagtcatta caaagcaata 60
 tcttgatatg taaatgctaa tctggggccc gggcagtttc aactagaaat atacgtaaga 120
 tttcagaaag aactcatacc agtttgggtc tatgtctttt ctttaagttct tactgtgatg 180
 atatggttca ttaaaattat tttttttctg atacattcta attaacatga aatcctttat 240
 gtactgcact agctttaaaa aataataata attttaagag actccaatga acattaatgc 300
 atttttttat ttatgcacag caattatatt ccagaagtga gaatcatgtc aattcccaac 360
 cttcgctaca tgaagggttag taccttgctc attaacagga agaaaaaggg attgatcaat 420
 gatgtgtgta catgtgtatg tgggtggcag tgtgtgtatt tggcacagga tccagtgcag 480
 aagggataga aaagaagaca gtttgggata ataaagacta aatttggtga cactgagatt 540
 cttgacaaca gcattctgatg aaaagtaggg agaaggagca ggggtgcacat tnnnnnnnnn 600
 ntgagtactc gag 613

<210> 1603
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 1603
 gaattcgcgg ccgcgtcgac gggcgagggtc ggactggaag gtaaaagggtc tgccagagtc 60
 ttgggagaag agaggtccca gtggggactg gtacgtgtca gcctgtccac actgcttctt 120
 caggtgggta cagtaattgt gagcgacctg cgtcacaggg tagatactga actggcagag 180
 agcaccttca aactggactg catgcgggtt catcttccca aagaggaggg agccccaggg 240
 gtcgagtgcg ggggtccctg tggaaaggca gcaggacagg caccggcgcc tgcccgaggg 300
 cagtcaccag agtgactgtg cggcatcgga gctcgag 337

<210> 1604
 <211> 458
 <212> DNA
 <213> Homo sapiens

<400> 1604
 gaattcgcgg ccgcgtcgac cttggaaccc cgttatccgc gatgcgtttc ctggcagcta 60
 cattcctgct cctggcgctc agcacccgtg cccaggccga accggtgcag ttcaaggact 120
 gcggttctgt ggatggagtt ataaaggag tgaatgtgag cccatgcccc acccaacct 180
 gccagctgag caaaggacag tcttacagcg tcaatgtcac cttcaccagc aatattcagt 240
 ctaaaagcag caaggcctgt gtgcattgga tcttgatggg cgtcccagtt ccttttccca 300
 ttctctgagc tgatgggtgt aagagtggaa ttaactgccc tatccaaaa gacaagacct 360

atagctacct gaataaacta ccagtgaaaa gcgaatatcc ctctataaaa ctggtggtgg 420
agtggcaact tcaggatgac aaaaaccata gtctcgag 458

<210> 1605

<211> 416

<212> DNA

<213> Homo sapiens

<400> 1605

gaattcgcgg ccgcgtcgac cttaaaagtt atagatttgc aaatttcaa gaaagccgtc 60
ttatttaatt gatataattga aatttataac tcacctttca gtggaatagt ttttgtaaat 120
tcattgagaaa gaaacaaaat atcaatttat agtagttgat ggtgttataa atccagaaga 180
agctctataa cattataaaa atcaagattg gttgttcaca ttttagagta ccaaaggcag 240
caaatgatg taatttataa ataataaact taaaactgtt gataaaccaa actctgaagt 300
atttttaaag aggtttattc taagccaatg agtgaccata gcccaaggag cagtctcaag 360
aggtcctgag aaagtgtgca ctgggtgttg gagttacatt ttagggagta ctcgag 416

<210> 1606

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1606

gaattcgcgg ccgcgtcgac cctaaaccgt tgattgaatt ctgacctgc ctgagtcga 60
ggatattgac ttctgaattc ttaagtttcc ttcttccag ctctatgagg ccactaatag 120
ctctatcaat gttattggcc ctcatccag gcaacactca gttctcagc tttttgctt 180
cccagaatca gcaaatatct tcagctaaga aaaaaaaat agctgcagca catcagctcg 240
ag 242

<210> 1607

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1607

gaattcgcgg ccgcgtcgac aatcaggaat ttgaagaaaa tggaaatggt tacatttttg 60
ttgactgtga tttttctacc cctcctaaga gggcacagtc tcttcacctg tgaaccaatt 120
actgttccca gatgtgtgaa aatggcctac aacatgacgt ttttccctaa tctgatgggt 180
cattatgacc agagtattgc ccggttgaa atggagcatt ttcttctct cgaatctg 240
gaatgttcac caaacattga aactttctc tgcaagcat ttgtaccaac actcgag 297

<210> 1608

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1608

gaattcgcgg ccgcgtcgac cattgacttc ttctaccggc cgcataccat caccctgttc 60
agcttcacca tcgtcagcct catgtaacttc gcctttacca gggatgactc tgttccagaa 120
gacaacatct ggagaggcat cctctctgtt attttcttct ttcttatcat cagtgtgtta 180
gttttcccca atgggtcgtt cactcgacct catccagcct tatggcgaat ggtttttgga 240
ctcagtgtgc tctacttctt gttcctggta ttctactct tctgaattt cgagcaggtt 300
aaatctctaa tgtattggct agatccaaat ctctgatag ccacaagggg agcagaagtc 360
ctcgag 366

<210> 1609

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1609

gaattcgcgg ccgcgtcgac gtgcattata gtgatttcag tagattcaca ctcaaatctt 60
 ttcagtgta tacatttatt aagccataaa gttatgaaac cctcagctct tgtactcgag 120

<210> 1610

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1610

gaattcgcgg ccgcgtcgac tgacaccttt ccccaaatat agattacaat aaagaaggct 60
 actaatgca tctgaaaagg tggatcctga ctactgttag gctagactcc ctaagctccc 120
 actatgcccc gctaatttgt ttttgtatct ttagtagaga cagggtttca ccatgttgge 180
 caggctggcc tcgaactcct gacctcgag 209

<210> 1611

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1611

gaattcgcgg ccgcgtcgac attctagacc tgctcgagt ctaccagga ctgcttgctt 60
 tttcttaaaa ccttaagcta actgtaggct atcattcaca tgccaaaat ccagccatgg 120
 cttctctttc aaaattaaca gtgaatatct tatccctagg cccattccta ctctccagcc 180
 ttaaccttct tcccttctgc cactgctatc aagaaccgg cccactcgag 230

<210> 1612

<211> 387

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (380)

<400> 1612

gaattcgcgg ccgcgtcgac tgggccttta gaagacttgg cttcttcact ggagagcttt 60
 tattcaggag gctgctagca ccagteetcc ctggggcctt gccaaagagga gagtgtgaa 120
 aggggtgcatc ctctgtgctc gggctgactt caccgtcacc tggtttcttc tccttcaggg 180
 aaaaggggtt cttattgggg cttattttct tcctgtgcca aaagatagcc atgtctttat 240
 gcaaactttt ccccttcttt ctagccaggg ctgcagatgc atgatcaaag aaatgtacca 300
 ctgcaagctt tttgtgcgc ctggtaaaga tgcgtgcac tttagcaatt ttgccaaaat 360
 ggttctccag aatggaacgn tctcgag 387

<210> 1613

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1613

gaattcgcgg ccgcgtcgac gtaggaattc caggttcagg ttccagcaca gccaatat 60
 tcacaggatt gttgtgtgaa ctgaatgaaa cacacacata tgaaaacaag gtatcttgat 120
 aaatcagtaa cttttataac accgttggtc caaaaaaag ccttacttta ttactttatg 180
 tgcattgtct cattaatatc ttctagtgtc tgtgattgtc aggtcagcac tgtcagccac 240
 ttcaaagaag aagagaatag gggagatctc gag 273

<210> 1614

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1614
 gaattcgcgg ccgcgtcgac gttcttagta ttttaagaggc cttcataatc acagaagaga 60
 gtgatattat aggattagaa cattgtattt ttggtttttg gtgetgaagt tctaattctta 120
 cctctgaagt gatcctgata ttttgccaaa gttgtgactt taatattctg cggcttgtta 180
 ttgtgatttt tctaatacca gagtagaatt ctggggaggga atttttctaa acccaaatac 240
 ctcaatttga agtgaggctt ggctttaaat aataacacat ttgagtttga gcttttcctg 300
 caattaagtg gtatgctgca aaaaggaatt cggttagcgc tcgag 345

<210> 1615
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 1615
 gaattcgcgg ccgcgtcgac cgattgaatg gggtttttgg gggttctttt tggatgatt 60
 attgttgttt tctgtttgtt tgtttgtttg tttgtttgtt tgttttttat ggtcaggcca 120
 cttgtctata gtctgtgtt ggtttgcgtg ggtctgtctc agaccctagt tgcctcagtt 180
 tttcccatc ctgaaggat caccagtga agctgcaaaa catcaaagat ggcagcctgc 240
 ttcttctctt gcttcttctt cgcgcagct catgctgtga atctcgag 288

<210> 1616
 <211> 163
 <212> DNA
 <213> Homo sapiens

<400> 1616
 gaattcgcgg ccgcgtcgac gtgttcccgga cacaagaaa tgataaatgc ttcaggatgat 60
 agatatgcta attatctctc ttttatcatt acactttata caaatgtatc aaagtttcac 120
 actggctggg ccggtgact cacacctgca gtccgaactc gag 163

<210> 1617
 <211> 292
 <212> DNA
 <213> Homo sapiens

<400> 1617
 gaattcgcgg ccgcgtcgac attttaaaac agctgtccat actttcttga acctaaagcat 60
 acaattgaac tgtttccact gcacccgtcc taacattttt tttgtctca tttctctttg 120
 tggctaatta ttaagataat ataaacttgc attaataaat ttaatgagaa agtgcttagg 180
 ctatgtgttg cagctcacat ctgtaacccc aacactttgg gaggtgagg caggagaatc 240
 tcttgagccc aggatcttga gatcagcctg ggcactactg caagacctcg ag 292

<210> 1618
 <211> 368
 <212> DNA
 <213> Homo sapiens

<400> 1618
 gaattcgcgg ccgcgtcgac cacacagtgt taccggatga ggagtctggc cttgctttgc 60
 tttctctgac ttttctgtct tgtcattggc tctcccgccc tctacacgc accccgcctg 120
 ttgcttctct tattctccag ttcccttcca atccccctc acttctctt actccctcc 180
 cccaggtcag tgcctggcgt ttctctctc tttctgttct cccatctctc cgggcagctg 240
 tctctgtctg gttctgtctc ctgctctccc gccctctac acgcacccgc ctggtgcttc 300
 tctcattctc cagttccctt ccaatcccc ttcacttctc tttactccc tccccaggt 360
 cgctcgag 368

<210> 1619
 <211> 108
 <212> DNA
 <213> Homo sapiens

<400> 1619

gaattcgcg cgcgctcgac ggtgggtcaa tcatcagttt aggctgccaat aactaatatc 60
 atagacgggtg gcttaagcaa cagaatgtat ttctcacac tactcgag 108

<210> 1620

<211> 287

<212> DNA

<213> Homo sapiens

<400> 1620

gaattcgcg cgcgctcgac caagaagttc aggaacaagt ctcccaaaaa aactgaaatt 60
 gtactgctct aatgttaaag tcaccttttg catttctctg gctaggagtg aggggaactg 120
 ggaagaatga attcctgaca cacctttctt tgggtttttt ttgggtttt gcagtgcctg 180
 catctaceta cagcccgctc ccaggggcca attacagttc cactccctac accccctcac 240
 ctgtcccccac ctacactcca tccccagcac cagcctatac cctcgag 287

<210> 1621

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1621

gaattcgcg cgcgctcgac gggccccctt ttccccagtc ttaacaacaa aaacacaaaa 60
 accagcctgg agatctacat tgtgatgctt ttaataaact tgactccttt cttggccagc 120
 tgtctcgag 129

<210> 1622

<211> 336

<212> DNA

<213> Homo sapiens

<400> 1622

gaattcgcg cgcgctcgac taaaatcaga acgtcagctc ccggtttgtt aatgggcagg 60
 tgttttccaa aatttgttgg taaagctttt gtttggatat tcaaatttat ttccccttga 120
 aacaaatata tctacttagt aaatatctgt ggaattatct ttaagctat gactagcaaa 180
 aaaggctggc tttgtgtcac ccacttacc ctcctcttta gtcctgggg cagacatctg 240
 gaattcttcc tagcactctt cctgctgata ccagatacaa ctgcagtagt tcataacatg 300
 accctgcagg tgcccacaac caaggcatta ctcgag 336

<210> 1623

<211> 301

<212> DNA

<213> Homo sapiens

<400> 1623

gaattcgcg cgcgctcgac ggattaccag cacctcaggc cacaagcat ccacagcgg 60
 ggcgtcctaa ctgtggacca cctctgctgg cgtgtgggca gtgactccca cattcagcgg 120
 gcgccacacc cacccaatat gcatgtttgg ggtgaggcac ttgttctgga ctcttcaca 180
 ctacagggtg gctataacca gcctctgggc ctgtccagca ccagtcaga tacccttttt 240
 cttgattgta ccattcgagg acttcagggt gaagcatcag atacctgtgc ccacactcga 300
 g 301

<210> 1624

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1624

gaattcgcg cgcgctcgac tggagatgag tccttgggtc caattcatgc tgtttatcct 60
 gcagctggac attgccttca agctaaacaa ccaaatcaga gaaaatgcag aagcttccat 120

ggacgtttcc ctggettacc gtgatgacgc atttgcctgag tggactgaaa tggcccatga 180
aagagtacca cagaaactcg ag 202

<210> 1625
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1625
gaattcgcgg ccgcgtcgac ccacatttcg tttgtgtctg tttccaccat tcatagaaac 60
cttggaaacca ctctcacagc aatgctagga tgtttcatgg acctgttaag cattttgatg 120
atacaagaca tcttatcaat gccagctta ttttcgctag gactctgctt ccacagtaag 180
ctcctaaggt gctcacccaa cccaggagaa aagctcgag 219

<210> 1626
<211> 389
<212> DNA
<213> Homo sapiens

<400> 1626
gaattcgcgg ccgcgtcgac gttgcagacc tcataatgac gctgacattt ccatttcgaa 60
tagtccatga tgcaggattt ggaccttggg acttcaagtt tattctctgc agatacactt 120
cagttttgtt ttatgcaaac atgtatactt ccacgtgtt ccttgggctg ataagcattg 180
ctcgctatct gaaggtggc aagccatttg gggactctcg gatgtacagc ataaccttca 240
cgaaggtttt atctgtttgt gtttgggtga tcatggctgt tttgtctttg ccaaaccatca 300
tcctgacaaa tggtcagcca acagaggaca atatccatga ctgctcaaaa cttaaaagtc 360
ctttgggggt caaatggcat actctcgag 389

<210> 1627
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1627
gaattcgcgg ccgcgtcgac cacatagaga cttaatttta gatttagaca aaatggaaat 60
tatttcacaa aaactattca ttttattgac tttagccact tcaagcttgt taacatcaaa 120
cattttttgt gcagatgaat tagtgatgc caatcttcac agcaaaagaaa attatgacaa 180
atattctgag ccttagaggat acccaaaagg ggaagaagc ctcaattttg aggaattaaa 240
agattgggga cgtccgaac tcgag 265

<210> 1628
<211> 232
<212> DNA
<213> Homo sapiens

<400> 1628
gaattcgcgg ccgcgtcgac gcattctgta agagtaagaa tagttagata ttcttctgtg 60
ttatcttagt accattacca catctgagaa aattagcaat aattgttcag tttctctccc 120
aatctctatt caaaattgtc cccagcttat tttgtgggac ttgaaaaaaa tcagataaag 180
cagataaatc aaatacatac catttatgca tttgattgtt aggtgtctcg ag 232

<210> 1629
<211> 483
<212> DNA
<213> Homo sapiens

<400> 1629
gaattcgcgg ccgcgtcgac ggaggagaat gagtatgtta atgaagataa aaagaagtga 60
catctcttgt acactgaact cacagaacat ttgtttacaa ttctgtgtga ctgtctgctt 120
ggagtttaca tatcaaggt ctgggctggt tggtaacgta acgtttccaa acattttgtc 180

```

tggccaatgg gttctataga aaagtcctgt tagtgtagag aaattgaaaa cagatctatt 240
aggttggtgc aattgctttt gcaccaacct aatatttgat ggcagtgggt tatcatgata 300
taccttttat gaattaatgt ttataaatga ctgtactgaa tttaaaaccg tacagtttca 360
tttgcaattt gacattactt tattatacat ttgcaattta aaaggctgca ccagttgggt 420
tttcttctgt tttattctca aaatatagag attctgtgat ttatttgcgc tgttctgtct 480
gag 483

```

<210> 1630

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1630

```

gaattcgcgg ccgcgtcgac taaaaatagg ttttctaaat ttagctaagt ctttaagtaat 60
ttgccgttgc taataatttt atctccttga gtcgggttgt ggggagagat ttatatattca 120
ataattttta gttattttgt aatgcagagt gtttattcat ttcacagttc cgcaatggat 180
gtagtatttt gggattgccc tgtccagaaa attttcagct acacaccttt aaaggaaaaat 240
gtttctatct cagatgaaac atgtaatttg ggatggctcg ag 282

```

<210> 1631

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1631

```

gaattcgcgg ccgcgtcgac gagaatagtt cacaagtaag aattaaaaata taggcccgtt 60
gttccatttt agtggggggt gatacaaac acccagaaag taaatgcttg agaatagttc 120
acaagtaaga attaaaatat aggcccggtt ttccataatg aaatcctata atttggccat 180
aaaactaata tttttaatta tttgcataat tggattaggg agcaagggtt aagctgaaag 240
actcgag 247

```

<210> 1632

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1632

```

gaattcgcgg ccgcgtcgac aaaaaagtc gttgtattgt aactcccttc ctacagacac 60
ctcccatag aataaaccca gaataaggat gacatttttg gtaaaactat tcaactatate 120
aatattacac attttccctg atatctgtag atctggacaa aaactaggta aaaatctagt 180
tcaagtatcg tgttaactac agttatgcac cacctaccaa cgtttcaatt atttaacaat 240
ggactcactc gag 253

```

<210> 1633

<211> 388

<212> DNA

<213> Homo sapiens

<400> 1633

```

gaattcgcgg ccgcgtcgac ctgagattga cataatggtc agagaatcat cttaggtctg 60
tctaattctc tatataaggc ggtatagcag atgtaacaag tatactctta actacagtgt 120
taaaaatgaa tggaaggact cagagtagtt gcttgaggga tggtttggag gggagcaaag 180
taaatcacag gagaccagt aggaggccct ttttcagggt agagcttata tcttttgaat 240
taggggttat gttgtagaga agatagatgt agaaggaaat gaaagaattt ttagggtatat 300
gtcaaaaata actcctctgt agctttcaca attgggggtt tgttgctggg gaaggggagt 360
ggtgggttaag ttggaggctt ttctcgag 388

```

<210> 1634

<211> 306

<212> DNA

<213> Homo sapiens

<400> 1634

```

gaattcgcgg cgcgctcgac atactgatca cgtgggatgt tgtttgccta cagggttaact 60
tggaggggtc aggggtgcgta gtggcccaga gcatgggtccc cagtgccac ggatgagacg 120
gcgtgtgtgc tgtgacctg ggcacttag catcgctgag cctcagagtc agtgtgtaga 180
attatctaag gggcttgta caagatgccg gcttcccacg gcttttgtca gtactcagtt 240
aatctgctgg tgcttgaata gcacctgaaa cagggtttgg ccttcagaaa atggcageta 300
ctcgag 306

```

<210> 1635

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1635

```

gaattcgcgg cgcgctcgac aagtcctttg ccatgaggaa aaagtgggtt tttgcttcat 60
atggtaaatc tatattattc atattgaatg tattaacaga taatgggtga aaagcattct 120
tcccagggga agagtgtatc atgcataact gcaatttaag tccttctttt gataatactt 180
caaacatac acagctactc gag 203

```

<210> 1636

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1636

```

gaattcgcgg cgcgctcgac ctcaagatct ttgcaaatgt ttcttgtctg gatcccttct 60
ctcttctgt caacttttct cctagttacc tcttacaatc cttcagaact cagatgcada 120
tcactttctc aaggcctcaa ggaagccttc tgtggccctc cggaacagat caagttcagg 180
ttcttcttta ttaccctcac taaactcgag 210

```

<210> 1637

<211> 183

<212> DNA

<213> Homo sapiens

<400> 1637

```

gaattcgcgg cgcgctcgac cgggagtact gttgggtacc cctctgcttt cattccaaga 60
ttcttcttct atctttgatt tttagattta tgcagtttaa atatgatatg cctaggtgta 120
gcatttgggg ctttgtgtgt gtgtgtgtgc gcgcgcgcgt gtgtgtgtat gagagagctc 180
gag 183

```

<210> 1638

<211> 241

<212> DNA

<213> Homo sapiens

<400> 1638

```

gaattcgcgg cgcgctcgac gaataatgaa accaacgaat catctggatg ctttttatta 60
tcctcctgca gctgaaattc taataaatat cagtgatagc atactcccca ttggggatca 120
gtatgaagaa ctgtgcctgc acagaaagcc ctcagtgcac tgtctcctgc tattattttt 180
ccttgaagtt ccattttctc tcattgactc aaaatccttc acggggcccc tactgtctga 240
g 241

```

<210> 1639

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1639

gaattcgcgg ccgcgtcgac cagttttaca agtgcccagt gtgacaagta taccacgtgt 60
 gaggttggcg ggaccagtct atgaggacag gaaagaacag tatgtgggca tctttatttc 120
 cattagtcac tttttcattc aacaaataca tgttatgcaa tgcagccttt tgggtgttgt 180
 gctgggcaga taaaagacac atcccacagg gtcttgccct taaggattct ccagctctgt 240
 ataataatat gccaaaaacc acagcactcg ag 272

<210> 1640

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1640

gaattcgcgg ccgcgtcgac ggtcaggcgg gaaaacggtc ataaaagtat ccaagtaagg 60
 aaaagggaaa gctgggtaag gctgcaagcc ctccggacaag ggcggcccat gcaggccttc 120
 cgggtgcagtt ccgggggctg cgtattctct tccgggtgag gtcggcgctg ggaggggaaa 180
 agctgggacg aggtaaaggg cctggctggg caccatggcg gcagggtggga aggtcgggct 240
 cgag 244

<210> 1641

<211> 555

<212> DNA

<213> Homo sapiens

<400> 1641

gaattcgcgg ccgcgtcgac cttcgactgg aagtcgcagc tggatcatcca ccgcaagggc 60
 caccggcggg aggttccatg agcagccaga cagcacagtc ccteggggctc tcggtgttct 120
 cggggccttg atacagcctc tggggcacca gcagaagact ctggaggcag caggggatgc 180
 cagagtgaac aaggggtccc aagccagttc cctgccccctg gtctgggtctc ccccaaaaga 240
 ctgggtgcaa ggaaaaggag ctgctctctc tcttcttgcc cctgcctcct agagggaggt 300
 ctgggttccc ttctatggct gaccagtgcc tgtggggtga ctgccaaagca ccaggctccc 360
 tccctccctg tgacatggcc tgggctgaca acactccctc tcctgggacc tcttgcctc 420
 aggtgggtgt tcaaaaactg tgccttcccc ctcgtctgtg cagaggetgg gcctgaggte 480
 tcagtgtgga gagcagcaga agaccagga aagcacagtt ggcttccgtt tctcctgctc 540
 ccctgtatgc tcgag 555

<210> 1642

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1642

gaattcgcgg ccgcgtcgac attgaatgta tgtctttata tactttttac tgagattttt 60
 ctgttttatg gtagatactt taaatttttt atttatttca agtgtgttca taattgcttg 120
 ttgaaagggt tttatgatag ctgctttaaa aatctttgtc atctttgtgt tagtgtgttt 180
 tgttgtgtgc ttttctcatt tagttgaggt tctcgag 217

<210> 1643

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1643

gaattcgcgg ccgcgtcgac attttrattt tgggtgtattt aaggetacca aagaaaaaag 60
 aatatcgaaa tagatttata tttatgaatt tcattgctgc cctaacttac tgccttattt 120
 tctccatcct cccagcttgg atgactccca ttccaagtca tccccacccc tcagggtgca 180
 taggagccct tagtctactg cattcctcca gtgcagcact cgag 224

<210> 1644

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1644

```

gaattcgcgg ccgcgtcgac ttcttacttc agcagttctt ttgtaaatta catttactgt 60
gtttttcata aaggtagaaa aaaattacca ataatttcag aaccaaagtc accattatta 120
ccattgacat ttaaaaaaat aatgttttat ggtggaatat tttcaaaaa atactgcctc 180
atcagtgttt ttgcaagtc ttttctgtg tttctttcat tttctctaa aacaagcaaa 240
aatctcgag                                     249

```

<210> 1645

<211> 479

<212> DNA

<213> Homo sapiens

<400> 1645

```

gaattcgcgg ccgcgtcgac gggaggggctt tgggttttga gctcagtgtt ctgggattca 60
tatctagagc tctcagattc atagccaggg ctccgggggt caccaccggg gctccgaggt 120
tcatagccag ggctttgggg ttcatacctt gggctctggg attcaaaact agggctctga 180
gaatctgatt cagggcttct gggtgcaaac tcagggcttg ggggcacaag ccaggggctt 240
cgggactcaa acccggggct ttcaggctca aatctggggc tttgggggtt aaactctggg 300
ctttgtggct caaacccagg gctctggggg tcaagcccaa atgggtatct ttcgacttca 360
tagtccccac tgccttcttg ctgagaaact tctcttctct cattctcact catgttgcc 420
ctgaggtacc cttcggggct cctcatttct tcagaactct gcacatcttg gggctcgag 479

```

<210> 1646

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1646

```

gaattcgcgg ccgcgtcgac atactataag gataaacaaa gtcaagtcca taaagcaata 60
atccctcaga aggaaggtcc ttacttttca catattaata tttagtaatt tttctgctt 120
ctaaaagtga gagtatcaca ccttaaatga acactgtcta ctaagagaca tcattccatt 180
tccacaaatg aagattttat tccaagaaac gagtttactg attggagcac tcgag 235

```

<210> 1647

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1647

```

gaattcgcgg ccgcgtcgac cttgctagct atggccctcg tactcggctc cctgttgctg 60
ctggggctgt gcgggaactc cttttcagga gggcagcctt catccacaga tgctcctaag 120
gcttggaatt atgaattgcc tgcaacaaat tatgagacct aagactccca taaagctgga 180
cccattggca ttctctttga acragtgc atctttctct atgtgttaca gccgcgtgat 240
ttcccagaag atacttttag aaaattotta cagaaggcat atgaatcaa aattgattat 300
gacaagattg tctactatga agcagggatt attctatgct gtgtcccag gctcgag 357

```

<210> 1648

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1648

```

gaattcgcgg ccgcgtcgac gtaagctggt ttctaccttc aggggtttta tgaaaactga 60
tctgggttat cagaaaaaga tgttaaaaca gaaaatgacc tttctgccag tgacttgta 120
atgctttctg tgtttggtgc tccacctaac aaagtgtctg tttttgccct accaagtgc 180
agctttgggt gggacgagg aactcgag                                     208

```

<210> 1649
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 1649
 gaattcgcg cgcgctcgac gcctctataa atctgagtat tgactgctaa aagtcaatat 60
 ctgctgttca ttcagaaaaat gagggtaact aacttgagta gcattgtttt tcttgccctt 120
 tcactccacac cccaggccct ggcagtgtc gag 153

<210> 1650
 <211> 242
 <212> DNA
 <213> Homo sapiens

<400> 1650
 gaattcgcg cgcgctcgac ctactacaga gttaggctta actccaccca acagccaagt 60
 ctgaaaccac tgacggtacc atgagggctt tcattttctt tctcttcatt ctctggcca 120
 tgttctcagc atcttcaacc cagatttcaa ataccagtgt cttcaacta gaagagaaac 180
 caaaacctgc acttattctg gaggaaaaaa atgaagctaa ccatttagga ggacgactcg 240
 ag 242

<210> 1651
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 1651
 gaattcgcg cgcgctcgac ccaaaaccaa agaggaaagc caaatactac ctaagacaca 60
 ttggcacctg agtatatat agaaaaactat gcaataata attgcagctt ttgccagagc 120
 tcaatttgct acttcagaga ttatattgct tataacccaa ctgcaacttg ctgctgtggc 180
 actgactggg atttccagtg tcccatacg tagttctaag agggttacta atattttaat 240
 aatatttgaa ttcctttgtc ataataaatg tgccaaccaa ctcgag 286

<210> 1652
 <211> 221
 <212> DNA
 <213> Homo sapiens

<400> 1652
 gaattcgcg cgcgctcgac cagagctctac atagaactat gcttcgtggt gttctgggga 60
 aaacctttcg acttggtggc tatactattc aatatggctg tatagctcat tgtgcttttg 120
 aatacgttgg tgggtgtgtc atgtgttctg gaccatcaat ggagcctaca attcaaaatt 180
 cagatattgt ctttgcagaa aatcttagtc gatctctcga g 221

<210> 1653
 <211> 319
 <212> DNA
 <213> Homo sapiens

<400> 1653
 gaattcgcg cgcgctcgac ctatgttgct tgtctgaata acataataat atatagcaat 60
 aactttttca ttgatttgaa taaatctatt gcatagaaat aggtgcacta ttgtagttgg 120
 cccagacttt atttaaagaa aagcagttta aaatagattc atcacatatt tagttttaaa 180
 tccccaatte agttttcttt gtttatagca atcaaattat taaatatatc ctattatact 240
 atttttaate ccctattccc aaaagataag ggaatttgaa agactgtgga aaatgatttt 300
 aggacgggca tacctcgag 319

<210> 1654
 <211> 319
 <212> DNA

<213> Homo sapiens

<400> 1654

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gaattcgccg cgcgctcgac tgccaatggt ccacgttgtt ggaatcatgg cactgggttc 60
agcataccct aactttgtaa gtcagatgat agctgtccct gcattttgcc agcatgttag 120
caagggttatt gaaattcgaa ctatgggaag cccttatttt ctaccagagc atatcttcag 180
agataagtgc atgcttccaa aatcttttaga gaagcatgaa aaagatttgt actttctgac 240
caacaagatt gcagagtcgc taggtggaag tggatatagt gttgagagat tgtcagttcc 300
gtatgtacca ctactcgag                                     319

```

<210> 1655

<211> 233

<212> DNA

<213> Homo sapiens

<400> 1655

```

gaattcgccg cgcgctcgac aggtttctga gacatctttg gtttctaata tcttccatgt 60
caacacggat gatcacaggg tctatggtac cgttgcttca ggtgatatcc aggggttctc 120
ctatgtcttt tgaagattct agtcgaatca tcccactctt ttatcttttt agtctcttgt 180
ttagtcattc actaatttcc atacatgata acgaattcta cggtgatctc gag          233

```

<210> 1656

<211> 585

<212> DNA

<213> Homo sapiens

<400> 1656

```

gaattcgccg cgcgctcgat tttagcctgga acagagcggc actcggcctg agcggctgta 60
tatecagggt tccttgaaga aggatgactc agtgggctac cgggcttttg tgcagacaga 120
ggatcatctg ctacttttcc tgcagcagtt ggcaggggaag gtggtgctgt ggagccgtga 180
ggcgtccctg gcagaagtgg tgtgcctaga gatgggtggac ctccccctga ctgggggcaca 240
ggccgagctg gaaggagaat ttggcaaaaa ggcagatggc ttgctgggga tgttccctgaa 300
acgcctctct tctcagctta tctgtctgca agcatggact tcccacctct ggaataatgtt 360
ttatgatgct cgggaagcccc ggagtcagat taagaatgag atcaacattg acaccctggc 420
cagagatgaa ttcaacctcc agaagatgat ggtgatggta acagcctcag gcaagctttt 480
tggcattgag agcagctctg gcaccatcct gtggaaacag tatctacca atgtcaagcc 540
agactcctcc tttaaactga tgggtccagag aactactagc tcgag          585

```

<210> 1657

<211> 340

<212> DNA

<213> Homo sapiens

<400> 1657

```

gaattcgccg cgcgctcgac tcatattggt ccccatgga cagcttttct tctctaatac 60
catacactca gtgcagggtc tgaatgtccc cccaaactca tatgttgaa tccaaatccc 120
caagggtgtg gtattagatg atgtagcctt tgggaaggaa ttagggtggt gccctcatga 180
atgggatttg tgtcattata aaacaagccc aaagaaattt ggtcaccctt tcttttaagc 240
gaggtcatgg caaaaagacg ctgtatatga accagaaaat gggctctcac tagacaccaa 300
atgctgggtg cttgttcttg gatttccag cccactcgag                                     340

```

<210> 1658

<211> 312

<212> DNA

<213> Homo sapiens

<400> 1658

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gaattcgccg cgcgctcgac agcacacctc aaactaacac agtccctatc aaacctttga 60
tcagtaactc tctgttttca tcacagccaa aggttagtac tccagtagtt aagcaaggac 120
cagtgtcaca gtcagccaca cagcagcctg taactgctga caagcagcaa ggtcatgaac 180

```

ctgtctctcc tcgaagtctt cagcgctcaa gccagagaag tccatcacct ggtcccaatc 240
 atacttctaa tagtagtaat gcatcaaatg caacagttgt accacagaat tcttctgccc 300
 gatgcctcag ag 312

<210> 1659
 <211> 219
 <212> DNA
 <213> Homo sapiens

<400> 1659
 gaattcgcgg ccgcgtcgac gctactggct caaattcagg ttctggcgtc aaatagcgac 60
 atttccagtt tctcttaaaa accgtgtttg gtttcagttg ggataggctt gttttgtctg 120
 ttgaaaatgt ttctagtttt ttttctttca tttttctctc attccatttc tgccttaact 180
 ttagtttgtt cacagggagg caaagctgac aatctcgag 219

<210> 1660
 <211> 129
 <212> DNA
 <213> Homo sapiens

<400> 1660
 gaattcgcgg ccgcgtcgac agctactaaa tctggtctaa tagtcaagac catcgcatth 60
 gaagttctaa tttttattat ttagttcata actaaaatga tttccttctg gaataaactt 120
 gtactcgag 129

<210> 1661
 <211> 245
 <212> DNA
 <213> Homo sapiens

<400> 1661
 gaattcgcgg ccgcgtcgac gttatgtgcc cagaagatct gagtgtttca ttagtaattg 60
 gaattctcct ctggaatctg actatcccag tggaaaaggg agatcatccc ggcattctgga 120
 tcttccctgc acatttgatt ccacttggaa aactttggtg ctgcctttcg aggacagagg 180
 ccgaggggtg gctctctcca acaggcagtt acagcttgaa ttctgcttct tccccaagac 240
 tcgag 245

<210> 1662
 <211> 266
 <212> DNA
 <213> Homo sapiens

<400> 1662
 gaattcgcgg ccgcgtcgac atgtgtgaag ctttcttcca gcaagaagca aaagaaaaag 60
 aaagagctga acccagagca aaagtcaaaa gagaagctga aaaggagaca tgcgatgaat 120
 ttcggagact tttgcaaaa ggaaaacttt tctgcacaag agaaaatgat cctgtgcgtg 180
 gccagatgg caagacccat ggcaacaagt gtgccatgtg taaggcagtc ttccagaaag 240
 aaaatgagga aagaaagaga ctcgag 266

<210> 1663
 <211> 252
 <212> DNA
 <213> Homo sapiens

<400> 1663
 gaattcgcgg ccgcgtcgac gaaaaatttc tctttcacag tctcagctct agacaattgt 60
 catctgtgtg gatgtgtgac tcatgttgcc agaattgtcg attttacaag ggaagccaga 120
 aatctgggtt ttcagataaa ttttttcaact atttttattt tatttattta ttttttgaga 180
 tggagtttct ctcttgttgc ccaaggcgga gtgcaatggc gcaatctcag ctcaccacaa 240
 cccctactcg ag 252

<210> 1664
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 1664
 gaattcgcg cgcgctcgac ctgaaatggc tgtctgtcat gcttgccatt tttatgaaac 60
 actttattgc aggtcagcta ttattgcaag tgctacttca agtcaactgg tcaggctggg 120
 gtcattgtgt gtttgcgtgca aacggcagcc tgccttgcag tgtgagctct tcctggaaac 180
 agcagtctct tgtagctgat gccacatcag ctttaagtca ttaggaagat attctaggcc 240
 ccttgttgct tcagccarca gtctataaat cacacaacac taattttcca tcaagtaaca 300
 gcttaaaaca gaacactgtc aaaccacaac tcgag 335

<210> 1665
 <211> 230
 <212> DNA
 <213> Homo sapiens

<400> 1665
 gaattcgcg cgcgctcgac ctgagatctc ttaatggaaa gctttgatat atttcatgtg 60
 tgttttttaa tagcattcaa tgtatgttta aatataaggag tgcctgtga gtggctccc 120
 gggagcagcc ggaagtgttg tactcggctg tctattgtgt gtgggagagt cttctgttg 180
 actgtggatc tcataattat gaggactgca tgcaaggatt gcctctcgag 230

<210> 1666
 <211> 260
 <212> DNA
 <213> Homo sapiens

<400> 1666
 gaattcgcg cgcgctcgac ccccttttat catttgcac agaaggctgc tgtctccctt 60
 ctgatttggg gggcaggtat tgtttttgag ccagtattta acagagtttc ttaattctata 120
 agattttttt tgaattctatt tcattgtgtt tgtttttcat gttggaacaa tctctctgga 180
 agtgcctctt cttgtggctt ttacaacttc atttctttct ggggtcacct gtgatgggct 240
 ttgatgtggt gtagctcgag 260

<210> 1667
 <211> 202
 <212> DNA
 <213> Homo sapiens

<400> 1667
 gaattcgcg cgcgctcgac caccgtcaat gaaagtgtct gacctttctg cctctgcctc 60
 cttactccta gcttgcggg atgggaccaa tgccaccag gatcttgtcc cctccatgtc 120
 accgaactgg tccgtctcga gccctcacct gacctgcgc ctcagcagcc aggcacatgc 180
 tgcctctccc tctccctcg ag 202

<210> 1668
 <211> 275
 <212> DNA
 <213> Homo sapiens

<400> 1668
 gaattcgcg cgcgctcgac atttgatagt tgattttcat atgtctttta ccttttaaaa 60
 tctctcattt cattcattgc tgccttttgt gttgatattt aaaattaac tatttttatt 120
 tcttttaaaa atttttctcc taatctctgt gttggtcaat tttgtgtttt tttttttttt 180
 ttgtaatgaa atgttttgat tctattctca tttcttttgt ggctatttta aagatattta 240
 gtattttctt tgtggttacc atgggggaac tcgag 275

<210> 1669

<211> 286
 <212> DNA
 <213> Homo sapiens

<400> 1669
 gaattcgcgg cgcgcgtcgac cccattcacc ttattcttcc ttaaataaat atctaatacat 60
 gttatttccc tgcttcaaaa actcttctaatt tatttccctg ttgtcttcaa gatcagacca 120
 aacttcccag caacactctt caaaatctga ttccagcctc ctggtacagt gtcattctctc 180
 ctgagcacac tccaggtccc tgacacacga gccagtggtt ctctatttcc cattgcctat 240
 aggattcttc cccacccatg acttgteccc ctgcacctgc ctcgag 286

<210> 1670
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 1670
 gaattcgcgg cgcgcgtcgac caaaacatct gcacgacagc tacgggcagt tcatcaacac 60
 aggagatctt gaataataat caaggattaa ttaagtttaa agcgtatcac attttgtacc 120
 agtgtcagaa tctgggggag gaagaacaat taaaaaagaa ttaggggttt ttattggtaa 180
 atccaaattc attcttaaat caaatgatga aaatatttgt cgttggttaatt acttaaaccc 240
 atttaatatg tgcctgtctc ttcaaacac taggaagcac cccactcgag 290

<210> 1671
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 1671
 gaattcgcgg cgcgcgtcgac ggtggtagaa gtaacctgaa atagagatac atttaaatat 60
 ctgagtggat gatttcagca aaggagagag accctgtgtt actatttttag gagtgtctct 120
 gattgtgtga acccgttgaa tacaccactt actaacggag cccggccatt ttgctcagat 180
 tattcagagc tctcaggccc attcagaatg aaattcaaaa tctttaccat gacgctcgag 240

<210> 1672
 <211> 274
 <212> DNA
 <213> Homo sapiens

<400> 1672
 gaattcgcgg cgcgcgtcgac cttagctgtt aaaacttcta gattgaaatt tgacagccag 60
 gggtacatat tggggacttt taaagtgtct ttccaaagag atttcattaa ccgttttagat 120
 tagaatatct ttcccaattg ttacagtgc atatatgtct caatatttaa caactggagt 180
 attagccaca tgggttattt ttccaatctg tgttttgaat ttttttattg tgtgttattt 240
 aaaatattac atatgcagtc gggagaacct cgag 274

<210> 1673
 <211> 239
 <212> DNA
 <213> Homo sapiens

<400> 1673
 gaattcgcgg cgcgcgtcgac tggaaatca aattttcatt tctttttcta acacttgagc 60
 tttctacttg acacaggcaa gaaatagagt ggagctttat tgtagcctct gctttcagaa 120
 acaggacata atattagttc atttccaagg attgggacat ctaatattag tcaattctaa 180
 ggattttttaa tttgatgttt tcagtgtttc atattcacct tctagtgtat agtctcgag 239

<210> 1674
 <211> 297
 <212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (22)..(24)

<400> 1674

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gaattcgcgg ccgcgtcgac cnnnaaacgg tcgattgaat tcataccttg tctcagatct 60
ctcctggtac ccttcccca cgcccttaga taatccatct caattcctca tgctaattga 120
ggagctatgg ctgcaaggca ccttccagga ttccacacct acacaaatct cctttttctc 180
cttttgectt ctctgcttat gggatattct gagtcgccac cccaatcac tgacagctgg 240
gcccccttca tcagcctcac acaccacgta ttaagtcagt cacaatctcc cctcgag 297
```

<210> 1675

<211> 260

<212> DNA

<213> Homo sapiens

<400> 1675

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gaattcgcgg ccgcgtcgac tgaaactata tcatttattt ttccatttat cactgctgtt 60
gtgttttgtt taattttaaa ctgtttccct ctacttgagt ataagtctca gaaggcagga 120
gcttgctatc ctattcacct aaggtaaggg taccattatt taaaacagta ccttaagtct 180
aaaatatgaa cagttcagca ataagagcta aataatagtt taacaaaatg ttatcacata 240
tctacacaat agcgtctcgag 260
```

<210> 1676

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1676

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gaattcgcgg ccgcgtcgac gcgtgatcag aatgggtgtct ggacggttct acttgctctg 60
cctgctgctg gggccctcctg gctctatgtg catcctcttc actatctact ggatgcagta 120
ctggcgtggt ggctttgcct ggaatggcag catctacatg ttcaactggc acccagtgct 180
tatggttgct ggcattggtg tattctatgg aggtgcgtca ctggtgtacc gcctgccccca 240
gtcgtgggtg gggcccaaac tgccctggaa actcctccat gcagcgtgc acctgatggc 300
cttcgtcttc actgttgtgg ggtcgggtgc tgtctttacg tttcacaacc atggaaggaa 360
tgccaaccat ctcgag 376
```

<210> 1677

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1677

```
gaattcgcgg ccgcgtcgac ctttgttgc agtccaaatc ctctgatttt ggtttgattt 60
gtccatagcag atccctgaac ttcagagagt attgccattt ggattcatgg agttggcgaa 120
ctgctacact gctacottgt gtatggctct aagctttgat cctaataact ggttgatgat 180
catgataata ttagagccag tgctcgag 208
```

<210> 1678

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1678

```
gaattcgcgg ccgcgtcgac actggcagtt caaaaactag tacagaaagt tggatttttt 60
ggaatttttg cctgtgcttc aattccaaat cttttatttg atctggctgg aataacgtgt 120
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<212> DNA
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<211> 377
<212> DNA
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cctcagcgat ggagtttagag ttccaggcgc acgtggtgaa cgagattgtg agtgtcaaga 300
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<211> 237
<212> DNA
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<400> 1681
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<212> DNA
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<400> 1682
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<211> 205
<212> DNA
<213> Homo sapiens

<400> 1683
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gggtgtccat agtggggaag aactccagct caccaccact atcaccatg tggacggacc 180
cactgagatc tacaagcgac tcgag 205

<210> 1684
<211> 274
<212> DNA
<213> Homo sapiens

<400> 1684
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<211> 222
<212> DNA
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<400> 1685
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ctccccacga ggactctctt tagcgtgtgt gacttcggcc acctgtctc tctcctggc 180
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<211> 197
<212> DNA
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<400> 1686
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accaaataat ttaaaagcat ttttaataga cttttaaaaa catgctaata aaatctagtt 180
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<210> 1687
<211> 328
<212> DNA
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<400> 1687
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ggcggctgca gagagaggcg ccgtggagct gaagaagaac gagttccagg gagagctgga 240
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<210> 1688
<211> 379
<212> DNA
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<400> 1688
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<210> 1689

<211> 406

<212> DNA

<213> Homo sapiens

<400> 1689

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 caggaggaag agggcggtgg gctgtggcgc cggctcctct tccgggaggg gcgaggtcgg 300
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<210> 1690

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1690

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<210> 1691

<211> 320

<212> DNA

<213> Homo sapiens

<400> 1691

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 ctgttgccca ggctgttgtg cagtgtcatg atcttggctc acagaaatct ctgccccctg 300
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<210> 1692

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1692

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<210> 1693

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1693

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caagcacaat ctcgag 196

<210> 1694

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1694

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ccacatgtgc acacacgggt gtcggtgcaa ctcaccagca ggtgtgcagt aggcaagctt 180
gaaggtggcc catgcttctc tgtgtgcaca caacacctcg ag 222

<210> 1695

<211> 233

<212> DNA

<213> Homo sapiens

<400> 1695

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aaaactttat gtttgctttt ttgtgtgctc gtaagggtt atttgccatt ctgtgtcagg 180
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<210> 1696

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1696

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gtaacctggc cttgttgctg ctgctgttag ctatgggaag taccagggga ctaagtatta 180
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<210> 1697

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1697

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acagggttaag ggggtgcttc cagcctccta acccaaagcc agctgttcca ggctccaggg 180
gaaaaaggtg tggccaggct gctcctcgag 210

<210> 1698

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1698

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<210> 1699

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1699

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 gcgtacttga agtacagttt ctgctgaata catgttgctt ttgcatcttg gcaaagtcaa 180
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<210> 1700

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1700

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 tcttctcctg ctgataaatt ggattctcga ttttaggaagg gaaatttttg cactagagat 180
 gctgaaactg atgaacctcg ag 202

<210> 1701

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1701

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 ccgtggctta aggacccccg ctgctttctg gcccaattg ctcgag 106

<210> 1702

<211> 327

<212> DNA

<213> Homo sapiens

<400> 1702

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 tgtaaatcaa ttagcacagt gtctcacacc tagaatgcac tcaagaaata atagccacta 240
 ttagattagt catagttata gaatatcatc aagggcctac atttgataaa aacactgcct 300
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<210> 1703

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1703

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<210> 1704

<211> 316

<212> DNA

<213> Homo sapiens

<400> 1704

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agctgtcaca ctcgag 316

<210> 1705

<211> 311

<212> DNA

<213> Homo sapiens

<400> 1705

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gggtgcatttt aagaccatac aaatacaata atactatggc caccctcttc ctccaacca 300
gtaagctcga g 311

<210> 1706

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1706

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aaagaacaat atgaagatgt gggctctagt cactgttgcg ttactaagtt tctatctgtt 180
acctagaata agtcattctt taagggtctca gatttttccc actacgaaac tcgag 235

<210> 1707

<211> 232

<212> DNA

<213> Homo sapiens

<400> 1707

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tgtgtttctg ttatggctgg cttctgtca ccccatgaa aatacggcag tatcagagat 180
aagtaatcag gtaatatcag agataagtaa tccatcgaaa gcccaactcg ag 232

<210> 1708

<211> 339

<212> DNA

<213> Homo sapiens

<400> 1708

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ccacacattt atcataccac agtgatctga acccatttag ggaattataa gctacagttg 180
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gctaccacta atccttcagg actgagattc aaggctttgc tagtaagagg cttgggaata 300
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<210> 1709

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1709

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atcttttttga gacctcgcag gccttgagct tgtcaccate tccctcagac agaccagtgc 180
tccctcgag 188

<210> 1710
<211> 192
<212> DNA
<213> Homo sapiens

<400> 1710
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tttcaatttt tctttctttc tttattttga gacagaatct ggctctgtca ctccaggctgg 120
agtgcctggg catgatctca aaaacaaaag aaataaaaaa taaaaataaa aggttctctgt 180
gagcaactcg ag 192

<210> 1711
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1711
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ttattaccct gttgccaggc caccgggtcc ggcccagcct tgattctctg ggaatcaact 180
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<210> 1712
<211> 212
<212> DNA
<213> Homo sapiens

<400> 1712
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tgtggcaaaag tgaagaatcc ttttacatac acagtacaga tgtatcaaaa ccatgtactg 180
ttttgtttac acacatgaca gaaccctcg ag 212

<210> 1713
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1713
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tcttcagatc ttccagttag tgttctctct cgttttatc ttaccttct tttggcacia 180
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<210> 1714
<211> 272
<212> DNA
<213> Homo sapiens

<400> 1714
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gcctttacct atcaattcac caaggagctg ttttctctgc atctaggcca tcatactgcc 240
aggttggtta tgactcagaa gcctgcctcg ag 272

<210> 1715

<211> 128

<212> DNA

<213> Homo sapiens

<400> 1715

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tataaagaca aaccgattgt agccaaatga caccatattt aataaaaattt agtctgaagt 120
gtctcgag 128

<210> 1716

<211> 268

<212> DNA

<213> Homo sapiens

<400> 1716

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aggagtgcag tggcgggatc ttggctcgct gcaacctctg ccttccaggt tcaatagagt 180
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<210> 1717

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1717

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aacagtcaaa ggaggacagg aggggagcca gctggtagga gggagcagca accgtgtgtg 180
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<210> 1718

<211> 264

<212> DNA

<213> Homo sapiens

<400> 1718

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ctcgattgt cacctgggct gcagtgcggt ggcgcgggtct tggctcactg cggcctctgc 180
ctcccaggtt cgggcgattc tcttggttcg gcctcctcag tagctgggat tgcaggtgct 240
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<210> 1719

<211> 214

<212> DNA

<213> Homo sapiens

<400> 1719

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tttattccct tgactcaaga cagctaactt cattttcaga actgttttaa acctttgtgt 180
gctgggttat aaaataatgc gtgtaatcct cgag 214

<210> 1720

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1720

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<210> 1721

<211> 234

<212> DNA

<213> Homo sapiens

<400> 1721

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 ctacagctgc tgcaagctcc gtctctcagg ttcacgccat tctcctgcct cagcctcccg 180
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<210> 1722

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1722

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 gtaggccatg ctaacaattc tactgggatg tctcgag 217

<210> 1723

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1723

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 aaggatatct acatttctct gaggtccgt tcatttttgt ttttattgtt gttctatttt 180
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<210> 1724

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1724

gaattcggcc aaagaggcct aagcatattg tcagaaggaa ggatgggtgca aattagcttt 60
 ttatcttctc gcattttttt actacctata tggcatgac tatgttttgg tgagctctta 120
 gaacaacaca cagaagaatt ggtccagta agtgcagca aaaagccacc aaatgaaggg 180
 attctatcca gcaagatcct gtccaagagt agcctgaggt gtctcgag 228

<210> 1725

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1725

gaattcggcc aaagaggcct agttgagttt gtcattaaaa tcataaacca gctgcggtaa 60
 cagacaagcc tttggctggg gagttttaag cctcggtaac tgctataaaa ctagccatcc 120
 agttaggata gaatgtgttt cttctctggc aaaaaagga aaaaccatct aagaaaatat 180

atatgtatgt atgtgtgtat acagtgggaat tcaaaggacc aaagcaaaat ttgaacagga 240
ttcctcgag 249

<210> 1726

<211> 436

<212> DNA

<213> Homo sapiens

<400> 1726

agaattcggc caaagagcct actggcatgt ctgagcataa gcctgacagt ctacttttcc 60
agctttcact tttcctttaa toatcctagc caagagctca aattctggag caaaattctg 120
gcaaggtcca caccaaggag catagaaac aatcacccaa tgatttttcc ctgttagaac 180
tttttcaactg aaagtctgag gtgttagatc tgtggatact tgaggtaaaa atcctagacc 240
ccagattctc agggaataag catccctatt ccaaccattg taactgtgat actgataagc 300
tttatttgat ttggggggaa aaaatcttat ctccaggtat ctttgaacgt tttcctgggc 360
acaaaaagaa tgatactgtt ggcaatctat actgccacg ttgatcagtc cagttaatgt 420
ccgggccgtt ctcgag 436

<210> 1727

<211> 367

<212> DNA

<213> Homo sapiens

<400> 1727

gaattcggcc aaagaggcct actgatacaa tcaagaagca gaacattccc atcccacaaa 60
gattctttat cttgcccttt tactgccgca caaattccct ctccctctg ccccatcett 120
aacctctgac aaccactcat ctgctgtcga tttctgtaat tcagtcattt caagaatgtt 180
acataaatgg agttgtacag tatgtaacct tttagactg gctctttttt cactgagcat 240
aattctctgg agatttatct acattatttt atatatatcc atggattgtt cctgtttaft 300
cctgagtaat attccatatt atggatgtat cagtttgttt aactgttttag ctgttgaagg 360
actcgag 367

<210> 1728

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1728

gaattcggcg ccgcgtcgac cgattgaatt ctgacacctg ctcgagcgag acttggttta 60
aaaaaataaa aaaggtagcc ctttactatt agaccgattt ctccgcaat acagagcagt 120
agctgagaat cattgtttgtc tatgtggcat tttctgctac ttgcttctgc catgccatgc 180
cttttctcat ctttgagacc agatcaccat ccaaaaacac tcgag 225

<210> 1729

<211> 352

<212> DNA

<213> Homo sapiens

<400> 1729

gaattcggcg ccgcgtcgac cccaggaca ctgagccac tttagtctaa tttctgctc 60
tttaattatt ttaacactcc agaggaggac tggttttctc ctgtgttttt ttaatatatg 120
gcaagtggaa cctctaactg accaccctgt ttttcagcct aactcaggct tgtggtaaaa 180
ttatcagttc ccacttttct tgctgcatcc tcaaatgcaa cacaggagaa cagctttccc 240
ttgcaaatcc acaatgtgtg taactatttg tctttatta tacatttcat taaagtttcc 300
tattattgga tttctttcta cttctcccta cagttctgcc cattcactcg ag 352

<210> 1730

<211> 145

<212> DNA

<213> Homo sapiens

<400> 1730

gaattcgcgg ccgcgtcgac ctcaaacttt ggtgtacata ccaatgatca tgtaaata 60
 cagcttgttg ggccctcactg cagcagtttc tgtctgttct tatccagtac tgccacctat 120
 tgggcaagct cttcagaagc tcgag 145

<210> 1731

<211> 341

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (25)

<220>

<221> unsure

<222> (306)

<400> 1731

gaattcgcgg ccgcgtccac gttgnttga caccagggtg gaatagcaga gaacggctgc 60
 ttgtgtttga attccagctc tgccacttcg atagatttct gaactgagac atgtgactct 120
 ctaggcctat ttctgcatgg gtcggagagt gggcgggact gctttactga gttatagtga 180
 atgtagtttt aacctaaagc cctcacatga ctaactcctc atccatcaag aatgagctca 240
 gctctcactt cccactcct cccccctg taaagtaacc tttctccaag gttatgcttc 300
 aacagnata gctaacattt attaaattgt ggcccctcga g 341

<210> 1732

<211> 411

<212> DNA

<213> Homo sapiens

<400> 1732

gaattcgcgg ccgcgtcgac tggttttga tgcttttgtg tagtttagaa cagatacaca 60
 ttagtaaaag ataccaataa tcattagagc tcaagggaagt tattaggtgc agcctctgga 120
 gccatactca cgctgcagtg cataatggga aaattaggag cattaataag aaatttcagt 180
 agtgtttga aggaaaaataa gctacttact gagatctgtt tcttctattg catgtttgct 240
 tttgaggagc agcttctgtc aaaaagtgaat tcatcaccag aactgggctt gttaggaaga 300
 atagggtttt atttactttt tatgtcaatt aacttcaaca aaaaggccac gctggctgct 360
 gtcattgcat ctgggtatgc attaaacatt aatgatgatc agcatctcga g 411

<210> 1733

<211> 319

<212> DNA

<213> Homo sapiens

<400> 1733

gaattcgcgg ccgcgtcgac ggtccgggtg cttttctcat attgactcat attggacata 60
 aattcatgcc cagcaacct atccaaggag gaattttggt tggctgtgta tcattttatc 120
 ttatggaact caggatgctt ttttttctag gtactaaca accatcccat taataattct 180
 tctctagcat tactcttgat agggagttct gtagttttgt agaaaagact gaagtaggcc 240
 tgggtgtgtg gctcacgctt gtaatcccag cacttttga ggccaagggt ggcagatccc 300
 ttgagatcag gcgctcgag 319

<210> 1734

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1734

gaattcgcgg ccgcgtcgac gccagacatg agttttgcaa gcattgcttt gttttgcttt 60

atatttaaag cccctttctc caaaaaattc attccacttt catcttctga atcggagttg 120
 gaatcagtc cagaattctc tgagggctgg cgggactctg cttttttgtt gggttctccc 180
 ctggagctcg ag 192

<210> 1735
 <211> 249
 <212> DNA
 <213> Homo sapiens

<400> 1735
 gaattcgagg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc cctcagtgtc 60
 tcccagtttc cttgctttct tttatttccc tcttgattgc tgcctcccca gttcttacc 120
 gctctctgtc ctagtccttt cctgtcaaa atggcagact cctccaatgc caccgctccc 180
 ctaccatctt gcccgagtc ttcccttctc tctccctccc tctggtctct tttggccatc 240
 cccctcgag 249

<210> 1736
 <211> 180
 <212> DNA
 <213> Homo sapiens

<400> 1736
 gaattcgagg cgcgctcgac gagcatttgc aaagtcattga aatattcttt gttttgtttg 60
 ggggcagttg cttggttttt tgatgttttg tgtgtggggg cagggacagg gtctcactct 120
 gccaccagg atggaacgca tagctcattg cagcttcaac cttttaccac cggactcgag 180

<210> 1737
 <211> 282
 <212> DNA
 <213> Homo sapiens

<400> 1737
 gaattcgagg cgcgctcgac ttgagtgttt actaactctg tgttttgctt acctggcttt 60
 tcttcctga agttgcttaa tttttttccc tccaagagga attattttaa aagacttttg 120
 tctgtgacat aaccaagatt tattctgttt acctaggaa cttattttct tttttgcaat 180
 ttcattttatt ctgagtcact ttatttgtaa taagtgaaga attttaatac ttagaaataa 240
 gttgtaaaga aaataatgag aatcttacca tgcgtactcg ag 282

<210> 1738
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 1738
 gaattcgagg cgcgctcgac gagaaaagtt tcagaaaacc tagattagag atgttggtgt 60
 tattttttatt tttctttatc tcaactctgc cttcttccct ctcttctttt ctctctccc 120
 actcccttct tacctctcca ctttggtttt ctacctcagc cctacttcc ttccctttct 180
 taattcttcc attctttctt cctttctcaa tagataagtt taataatagt ggttggtttg 240
 ttgtagatgt ttcaggggga aaaaatttaa aaggttgcac agttctcgag 290

<210> 1739
 <211> 356
 <212> DNA
 <213> Homo sapiens

<400> 1739
 ggaattcgag gccgctcga cagatttttt cctaaactga ggcaagaatt gagtctactt 60
 ttttttgttt ttcttgagtc tctgttacc tcaaatctag agacactctg cctctagtgt 120
 gaaatttctt aaaggtcagg taatcagtta gtcacttaag ttcagaggcc aacagctata 180
 atcaactgta gaagacccat ccaacacaaa ttcaaggagc tgatccaaag caaatgccca 240

cctccttggc aacagctgtt acagctgtgt tccttttcac ttccttctct cctttactta 300
aaccacattt attatccttc agttctggag gtcagaagtc cgacacaggt ctcgag 356

<210> 1740

<211> 298

<212> DNA

<213> Homo sapiens

<400> 1740

gaattcgcgg ccgcgtcgac tattcctggg tatggcactg tcctatgcc a tctcttcacc 60
actatttggg ctcctaagtg ataaaaggcc acctctaagg aaatggcttc tgggtgttgg 120
caacttaate acagccgggt gctacatgct cttagggcct gtcccaatct tgcataatga 180
aagtcagctc tggctgctgg tgcctgatatt agttgtaagt ggcctctctg ctggaatgag 240
tataattcca actttcccg g aaattctcag ttgtgcacat gaaaatgggt cactcgag 298

<210> 1741

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1741

gaattcgcgg ccgcgtcgac ccgtcgattg aattctagac ctgcctcgag ttttgccttt 60
gggtctctgt cacttggtga actatctgtc gctttttcaa gatgcagctg ttgtgtcacc 120
tcttctggat agtccttcca tactatctac acaagcaa at tgttgcctg ttccttgaaa 180
acccacctca acctctctgt acacaccagg caagaacata ccgcacttac ttgttaccag 240
gtctatctcc cctccccctc gag 263

<210> 1742

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1742

gaattcgcgg ccgcgtcgac ctaccacata agaagatatt tatataacag ttctcagaat 60
ccaactgttt tgcagttgaa attttctccc aagattccaa ttagtataaa attttaattt 120
gctaagaagc atctcacata ataaataagc ctatcaagaa ggcaatttat attaatattag 180
aataaactag actctgtgtc ctctgaatta aacaccaatg agcaccctaa agtttagact 240
tccttgcttt tactacttat atctgtttat tttttatgat gcagctctctg agcctgttcc 300
atttgaaact gaagctccca cactcgag 328

<210> 1743

<211> 155

<212> DNA

<213> Homo sapiens

<400> 1743

gaattcgcgg ccgcgtcgac gtctgttgaa aaagagaaga ggtttgcaaa taccctcatt 60
agagtactat gcaagtgttg catcactatt tccaaatttc cagggccata atgagtatct 120
tctttccact agctacttta acacaagccc tcgag 155

<210> 1744

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1744

gaattcgcgg ccgcgtcgac gaagaatgca agtattctgg agtttgagaa atgttttttc 60
tgcttttgtc atgaaatata ccttgaaca ccttccatt tgtggggacg ttaaatacta 120
taggcagaaa aatgaagata cgagccctgg catgcagga ctgcgtggca gtgtgggacg 180
cgtgcttgag cctcacttcc ttctctggga gatggcggta ggcggggccg tggagagcag 240

tagtgggaca gaaggagctg agtgctggga gctcgag

277

<210> 1745

<211> 392

<212> DNA

<213> Homo sapiens

<400> 1745

gaattcgcg cgcgctcgac atgttttgtc ccaagccctt gaatccctca aatctgacct 60
tgtcccctgc tgtggccacc actctctcct atttcattgg agtgtctcct cctgagcctt 120
tcagcccagt ccaggccagc tccttaatag ctgccccttc ccgtgaactc cctcttctctg 180
cctcctcttc cctccagtgg cagaaacccc acctctgttg gccagtgctc ttggaagaga 240
gtcctgagat gcccctcgga gtttgggtag agcccttgca ggcattccaga gaacaactgg 300
aatcaaggcc ctttgtgctt tctggttccc aagcgccttt ggggcttgag gttctcttca 360
ttagtggtgg atctgaagtg tttcctctcg ag 392

<210> 1746

<211> 432

<212> DNA

<213> Homo sapiens

<400> 1746

gaattcgcg cgcgctcgac cttaatgaga agactttcaa tagtaatgaa gaatccatgg 60
cactctcctc acctcaaac acatggcagt cattcacata caggcccaa agccactgtt 120
agtgtgcag tagctcctgt ggacattgga aagcccggag aggggtgga agaaatcagc 180
tggcccccg caggttctct ggggtttctt gcccaaggct cctggagccc taaaaacttt 240
caaaagttaa ctccccacgt ccccatcctg cttgggttctc tggacttttc tgaggcaccc 300
gcagaggggt ctcatgtctc ccttgagtgt aggggcagcc ctttaacctg gctccttgag 360
tccttgcctt ttctgtctct gttgccttct tctctgtctt cctctctctc aatatctccc 420
cccaaactcg ag 432

<210> 1747

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1747

gaattcgcg cgcgctcgac tgtgcttgtg gggattact taagaaatca ttgccagac 60
cgataccctg gagagtttcc ccagtgtttt atttttagtca ttcatagtt tgaggtctta 120
gatttttgc ttttaataat attttgattt gaggtttcta tatgggtaga gataggagtc 180
tagtttcatt cttctgcata tatatatcca gtttccaagc accatttatt gaagaaactg 240
tcttttctgc catgtatgtt tttggcacc tttgtcaaaa tgagttcact gtaggcgtgt 300
ggattttttt ctgggttctc ggttctattg ttctgtgtgc ctgtttttat gccagtacca 360
cgctcgag 368

<210> 1748

<211> 302

<212> DNA

<213> Homo sapiens

<400> 1748

gaattcgcg cgcgctcgac gcatatacag cccttggtat ttttaattatg agactaaaac 60
tcttcttgac accacacatg tgtgttatgg catcactgat ctgctcaaga cagctatttg 120
gatggctctt ttgcaaatga catcctgttg ctatttgtgt tgctatatta gcagcaatgt 180
caatacaagg tttagcaaat ctgcaaaccc agtgggaatat ttagggggag ttcagcaatt 240
tgccccaaga agaacttata gaatggatca aatatagtac taaaccagat gcagtcctcg 300
ag 302

<210> 1749

<211> 153

<212> DNA

<213> Homo sapiens

<400> 1749

```

gaattcgcgg ccgcgtcgac aggcctcctct catattccat cgccagtttc tgttacaagg 60
cagactgaat caagccaaga tcaacacaca ctggtacacg tggctcccaa ccaattttat 120
atgtatatat atattctact tcaaacactc gag                                     153

```

<210> 1750

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1750

```

gaattcgcgg ccgcgtcgac cccccccccc cttttttttt tttttttttt cctccttaat 60
ttttgtttca ttggattttt tccctcgggt agttaagtgc tctgctgctt gcttgcctcat 120
gcttoctaac aatttttagcc ttcgactgat tttctttttt tctttttctc tttttactgg 180
tatttggttt ttatactcat tcaactaaaca ggggaattcct caagctgtac ttccccatt 240
accaagaggg cctgctcttg aaaaaaccaa cggtgccacc gcatgcctcg ag          292

```

<210> 1751

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1751

```

gaattcgcgg ccgcgtcgac gcgcacagtt cttctgttac ctgtgtggag gaaaagtact 60
gagtgaaggg cagaaaaaga gaaaacagaa atgctctgcc cttggagaac tgctaacctt 120
gggtactagt tgattttgac tatcttctta gtggccgaag cggagggtgc tgctcaacaa 180
aacaactcat taatgctgca aactagcaag gagaatcatg ctttagcttc aagcagttta 240
tgtatggatg aaaaacagat tacacagaaa ctcgag                                276

```

<210> 1752

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1752

```

gaattcgcgg ccgcgtcgac tggctgggctg gtagatttaa atcactggtt ccgcatgtta 60
ttcatgacgc ccatgaaacc cgccaacaat ttagcttctt cccgagcagc aagttttctt 120
tcggtcttct tcttgctgct cttctccacc ccagaggctg ccatcctccc tcagctcggt 180
tcaegcccg ggtcgcggg gccgggagag aggtcgcccc tcgag                                225

```

<210> 1753

<211> 362

<212> DNA

<213> Homo sapiens

<400> 1753

```

gaattcgcgg ccgcgtcgac agaccccaca acatgcgccc tgaagacaga atgttccata 60
tcagagctgt gatcttgaga gccctctcct tggctttcct gctgagtctc cgaggagctg 120
gggccatcaa ggcggaccat gtgtcaactt atgccgcgtt tgtacagacg catagaccaa 180
caggggagtt tatgtttgaa tttgatgaag atgagatggt ctatgtggat ctggacaaga 240
aggagaccgt ctggcatctg gaggagtttg gccaaagcctt ttcctttgag gctcaggggc 300
ggctggctaa cattgctata ttgaacaaca acttgaatac cttgatccag cgttcactcg 360
ag                                     362

```

<210> 1754

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1754

gaattcgcgg ccgcgtcgac attgaattct agacctgcct cggtctctcc ctttttcate 60
ccatacctaa gccatcagca agtgcttctg aaataccatg tccagaatct catcacttct 120
cactctctcc actgctgcta ccttgactgc tgtcatcccc tcttgctgc attactgtac 180
cagccgcctg actcgtcttc ctgcttccac cttcccacct tcagtcatat atccaggcag 240
caacggaggg ctcgag 256

<210> 1755

<211> 226

<212> DNA

<213> Homo sapiens

<400> 1755

gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctcgagcttg gtcccacttt 60
tatatttttc ctcttcggtc cagaatttct tatttagttt cttgtatttt gctactccc 120
tccctctctc atgattcagc ctagtcttcc cgtcctctgt ggacttgggt gtgcttccct 180
ctggggccacc tcgtcttttg ctgctgttag cccaccgcgc ctcgag 226

<210> 1756

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1756

gaattcgcgg ccgcgtcgac ggtgggggac tctgaacttg tctgctgct gccatatttg 60
caatgggtgct gaggtggttc atctgggtca ttgccatgag caactatcat gccagtaata 120
accaacatgg agcagactct gaaaacgggg acatgaattc aagtgtcgga ctggaacttc 180
cttttatgat gatgccccat ccactcgag 209

<210> 1757

<211> 820

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (20)

<400> 1757

gaattcgcgg ccgcgtcgan ccataatgat gctgcctcaa aactcgtggc atattgattt 60
tgggaagatgc tgcgtcctac agaacctttt ctctgctgtg gtaacttgca tctgctcct 120
gaattcctgc tttctcatca gcagttttaa tgggaacagat ttggagtga ggtgggtcaa 180
tggagacggt cctgctctg ggacagtga ggtgaaattc cagggacagt gggggactgt 240
gtgtgatgat ggggtgggaac actactgect caactgtcgt gtgcaaacag cttggatgtc 300
cattttcttt cgccatgttt cgttttggac aagccgtgac tagacatga aaaatttggc 360
ttgatgatgt ttcctgttat ggaaatgagt cagctctctg ggaatgtcaa caccgggaat 420
ggggaagcca taactgttat catggagaag aagttggtgt gaactgttaa cgggtgaagcc 480
atctgggttt gaggtagtgt gatggaaaca ctctgttca gggagagtgg aggtgaaatt 540
ccaagaaaagg tggggaacta tatgtgatga tgggtggaac tttaataccc ctgccgtcct 600
gtgcaggcaa ctaggatgtc catctctttt tatttcttct ggagtgtcta acagccctgc 660
tgtattgcgc cccatttggc tggatgacat tttatgccag gggaatgagt tggcactctg 720
gaattgcaga catcgtggat ggggaaatca tgactgcagt cacaatgagg atgtcacatt 780
aactgttat gatagtagtg atottgaacg taggctcgag 820

<210> 1758

<211> 132

<212> DNA

<213> Homo sapiens

<400> 1758

gaattcgcg cgcgctcgac gagtagttgg gcaaaacaaa tagcagtaat attaaagcca 60
 gaaatctcct tagagttcct actggtgggc caggtgtggt ggctcatgct tgtaatcccc 120
 gcgtttctcg ag 132

<210> 1759

<211> 267

<212> DNA

<213> Homo sapiens

<400> 1759

gaattcgcg cgcgctcgac ccttttaata gaccaattcc tcttctcaaa attcagatat 60
 tctctgttct cacattccct cagttctcaa tttcttttct cgtagtcttt tctgtactta 120
 acaaccctag atttctctcag ttcaggcaaa actctcatta ctagtatttt cctttctctt 180
 tgaccctaaa gtgtgaagcc ctttagcattt caccatata tttctgagtg accctcccc 240
 atgctgctgt gtcagatcac tctcgag 267

<210> 1760

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1760

gaattcgcg cgcgctcgac cagcgttcca agtgtctttc acatgctaaa tcgattgac 60
 cttagttcag agctcttgac cacagcccta tgettaaaaa aaatgcccc gtgttcactt 120
 ttcacaggtt gtctccttaa cacaactatc gtgtacgacg aatgctatta tgcccatttt 180
 actgagggga aaacagcttc cctctcatct attctgaacc cctcttcacc cctcgag 237

<210> 1761

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1761

gaattcgcg cgcgctcgac cttggatcaa aagcatctct ttgaacctct cctcaggca 60
 taccctgaaa tgcgttgac tttaaccttt tttctgttgc aaaggtcgct cacatctccc 120
 tgggtgtttg gtcttctctt ccttggctct agtaacacag cagtctgttg cttccttaga 180
 caactataa tgggacccaa aggggaaaga ggatttcccg ggcctccagg aagatgtctt 240
 tgtggaccca ctatgaatgt gaataacctc gag 273

<210> 1762

<211> 349

<212> DNA

<213> Homo sapiens

<400> 1762

gaattcgcg cgcgctcgac tgcttgagga aggacaagtt aattagaaaa atatagaagg 60
 gcatgtagat ttgaaagagg atttgggaac attttgaatt tagaaaatga atcttagaac 120
 ttatacttct aactttttat gcctaaagga actaatgtac attttatgat tttagttata 180
 caagtggagg gcttatcagc tgggcatatt cttttccct ttgttaagaa aaagaaccaa 240
 atgagtaaga gaagaatgta actgggaaaa aactaaaaac agaggaagga agtgggttaa 300
 gaagatatat ctgtaaattt aagaaagcat ttggagaggc gagctcgag 349

<210> 1763

<211> 263

<212> DNA

<213> Homo sapiens

<400> 1763

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cactttattg acaaaaccca agtccacctc acctctctgg cagctacctc agtgggtatgg 120
 gtttatttgt gtctctattt ttgtctcatt tgtttgtctc taagatccct cctgggtcag 180
 gccatgctcc tcgccccac ccgcaggatc tgatgctaca ggaatataat tgtgggtccc 240
 ctaccacaac cctcatctc gag 263

<210> 1764

<211> 568

<212> DNA

<213> Homo sapiens

<400> 1764

gaattcgcgg ccgcgtcgac gacctttgga tgagattttt gtgggggtctt tttgttgat 60
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 cgtttgctgg aggtccactc cagactctat tcacctgggt cctcccca cctggagata 180
 tcaccagtgg aggtcgcagc aaagcaaaga tggctgcctg ctctctctc caggagctcc 240
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 atctggctgc cccttggcag agcagggtgca ctgcactggg ggaaatccca ctgctctgga 420
 ctaccagcca cctcagagcc agcaagcagg aaagactaag tgtgttgaac aggagatcat 480
 gactgcctcc ccacagagga tctgtccac tggccacctc agagccagca agcaggaaaa 540
 actaagtgtg ttgaacagga gtctcgag 568

<210> 1765

<211> 176

<212> DNA

<213> Homo sapiens

<400> 1765

gaattcgcgg ccgcgtcgac gtctttctct gcttcttgta ccccttcttc cctgttatdt 60
 catctaaatc ctccgggaatt ctgatatcat atttatcctt ttcaaatcgg aactctgttg 120
 catttttgta gcttctaaga ttccaaatga tgatcctcgt ccccttcttg ctcgag 176

<210> 1766

<211> 528

<212> DNA

<213> Homo sapiens

<400> 1766

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 aagtgtcaga ggaagtgcc a tctggtacag tgatcgggaa gctgtcccag gaactgggcc 180
 gggaggagag gcggaggcaa gctggggccg cctccaggt gttgcagctg cctcaggcgc 240
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 agcagctatg ccgaacagtgg gatccctgccc tggtttctct tgatgtgctt gccacagggg 360
 atttggctct gatccatgtg gagatccaag tgctggacat caatgaccac cagccacggg 420
 ttcccaaagg cgagcaggag ctggaaatct ctgagagcgc ctctcttgcg aacccggatc 480
 cccttgga gaagctctga cccagacaca ggccctaaca cctcagag 528

<210> 1767

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1767

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 tctggcctgc tcatggacct cgtgagcta tgcctctct tcttcatcat gegttttctc 180
 ttctctgtgt gatcatttgc ttccacacac aaactgcctg ctatgtctct cgtattaaaa 240
 ataaaagaac agaaaattct ccccttctcg aatcactcga g 281

<210> 1768

<211> 112

<212> DNA

<213> Homo sapiens

<400> 1768

gaattcgcgg ccgcgtcgac gttttagtgc gctgggtggg gtaataagtc ctttttttagt 60
 ttttcaagga gctgccaaat tattgtcaac aatgtttgta ccgtttctcg ag 112

<210> 1769

<211> 351

<212> DNA

<213> Homo sapiens

<400> 1769

gaattcgcgg ccgcgtcgac gtggtatttc tgttcctgag cttcccgagg gatatcccat 60
 aatttagttat ctgtattggg tgggaaaaag aaaataactg gggtttttctc ctgttgccca 120
 attctgtgcc acgtttgtta acccctagtc ccaatttttt ctgccggctg ctcttagaag 180
 gcttattgga caatcttaac atctgagtag cagaagtccc tgagtaaact tgtgctgaag 240
 aattgccaca tagtttaata gttgtggarc tgctgggttt catggatott ttgtttcagt 300
 atcaagaaga tgctttgttg gaacatattt tttacccac ttttgctcga g 351

<210> 1770

<211> 407

<212> DNA

<213> Homo sapiens

<400> 1770

gaattcgcgg ccgcgtcgac aaagtctttt tttttcttct aaactgattt ttagcaaac 60
 tcagactgaa acacaggact caacgggtgta ttcttggaag gcaagggtgct ataatggcag 120
 gcacaatctg tttcatcatg tgggtgttat tcataacaga cactgtgtgg tctagaagtg 180
 taaggcaggc ctatgaagta catgattcag atgattggac tattcatgac ttogagtgtc 240
 ccattggaatg tttctgcccc cccagttttc ctactgcttt atattgtgaa aatagaggtc 300
 tcaaagaaat tctgtctatt ccttcaagaa tttggtatct ttatcttcaa aacaacctga 360
 tagaaacat tctgaaaag ccatttgaga atgccaccgg actcgag 407

<210> 1771

<211> 328

<212> DNA

<213> Homo sapiens

<400> 1771

gaattcgcgg ccgcgtcgac ctgggacgag taggtttcac tgtttctcat aggagacttg 60
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 ttttagcaaac ctgagactga gacacaggac tcaacgggtg attcctggaa ggcaagggtc 180
 tataatggca ggcacaatct gtttcatcat gtgggtgtta ttcataacag acactgtgtg 240
 gtctagaagt gtaaggcagg tctatgaagt acatgattca gatgattgga ctattcatga 300
 cttcgagtgt cccatggtct cactcgag 328

<210> 1772

<211> 339

<212> DNA

<213> Homo sapiens

<400> 1772

gaattcgcgg ccgcgtcgac tgctagtaag aactactcca tggctaattt gttcttcaga 60
 gtaaaactgaa ctaatctttt ccaagtgcga gctgcctcaa gttgataaat gcctaaattt 120
 ccaaaatact acaacaaaaa gcaaagtctt ccagtctctc agatacaatt tttttataga 180
 tacctcaaca tgcacaaaac ttttctttgt tgctgttgtt ttttgagaca gggctctcgt 240
 ctgtcacccg ggccagagtg taatgatgtg aacacagctc actgcagcct caactctctg 300

ggctcaagca gtcctccagc ctcagccccc tccctogag 339

<210> 1773

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1773

gaattcgcg cgcgctcgac ttcctagtaa ctgtgtcttt cacattttat aaatattaac 60
ttcttaaac tgcattctct tctttgtcca catatcgta cattacaaa aagaaatgta 120
aatraaatac actgttaatg ttactatatt aaatctgtc tctgttcag cactccgctc 180
cttttaccac caccatcac ccctaacccc actccacca ctgctagttt gtcccactgc 240
tactgttgcc aacactgtca ccactgtcac catttcaag tccccctcg ag 292

<210> 1774

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1774

gaattcgcg cgcgctcgac cacagacacc cagctaattg tcatctaccc gcctcagett 60
cccaactgt ttggattaca ggtatgagcc actgtgccc gcagaaatta catttcaaaa 120
ttaatatga gacatggtga taaactaacat atttataaca tgaatctgc tcatccagga 180
acatagaatg caaatctttc attccactca gcaaaatttt gtctgtctct tgataaaagt 240
cctcgag 247

<210> 1775

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1775

gaattcgcg cgcgctcgac actaatgaag gtgcctggga ctaggccagc taaaagattg 60
ttttgtcaag ttctccagct gctactcttg ggccatatgt ggatgtttat ggttccagtg 120
gccactcca atctcttttt ttgtctagtg cctggcctgg taccaccagc tcttagggct 180
actggcatga gtgaaaagag cccagtgtca cccaacacac cacttaccac cttgtattct 240
tcaaccaccc ggaccacac gtctctcgag 270

<210> 1776

<211> 251

<212> DNA

<213> Homo sapiens

<400> 1776

gaattcgcg cgcgctcgac attgaattct agacctgacc ctcccnaact ctcctgtct 60
cctctttcat tcttccctc tttcttttc cctctcttc cccacttcca tctgagctgc 120
ttcttaacgg tatgagatta ttttactct tcttcttct tctcttctc gtctgtcctg 180
gcctagagag gtgcccctgc tgtccctct gcacccaccg tcttttcca agcatgaaca 240
gtggactcga g 251

<210> 1777

<211> 342

<212> DNA

<213> Homo sapiens

<400> 1777

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gaaataaatt ctttttcttt ttttaagggt atgacataag tctttcatag tagcagaatt 120
tgccttagga aaacgatgat tatatgttta tatatttacc atatagaatc tgtaacataa 180
tggtgaatgt cctgatgtct tctaatacca tcattaaact gatttagatg ggtggatgga 240

tgacaggcag gcaggetcac agacaaacct tttttatget aagccaacaa accaccattt 300
tcttcttttc cccttagtcg ggccttacc ccaatctctcg ag 342

<210> 1778
<211> 419
<212> DNA
<213> Homo sapiens

<400> 1778
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ttgctgcact ctcactcctt cttgatgcc aacacagatga agctgccact gagaatattt 120
taaaagctga actgactatg ggtgttcttt gtggaagact gggccttgta acttcaagag 180
atgcctttat aactgcaata tgcaaaggtt ccctgcctcc ccattatgct cttactgtat 240
tgaataccac cactgcagct acactttcca acaaatcata ttccgttcag ggccaaagtg 300
ttatgatgat aagtccatca agtgaatctc accaacaagt tgtggcagtg ggtcaacctt 360
tagcagtcga gcctcaaggg acagtaatgc tgacttccaa aaatatccac gtgctcgag 419

<210> 1779
<211> 127
<212> DNA
<213> Homo sapiens

<400> 1779
gaattcgcgg ccgcgtcgac gtttggtctg gcttattatt atcaaaggcc attagacca 60
ctgataaaaa agttttaaag gttataatat ttataaaagt atcatgaaac tggagtgttt 120
cctcgag 127

<210> 1780
<211> 527
<212> DNA
<213> Homo sapiens

<400> 1780
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tttttttaaaa trgttaaaaa tcagagctat ttattagaag caatctgtgg gtgataataa 120
atctgctttt agagttttat ttagctagat tttttattgt gctaaataat agaaggttac 180
tgccagcacc atctctgac agtctgcaaa cttagagcgg tcagcctctg cttgcaaaact 240
gaaaagttag ttctctagac agcacctgtg gtctgaactt cagtacttct ccaaggaaaa 300
tcttaccagg aaaactctgc ccagaatct gtctattaac agaggtgata accaagctct 360
ttcaaggtaa caatatgtt atattgagtt ttatacttcc catgttccga ggtggccatt 420
ttcatgcat atgtcatccc actaacgtgg ctacacttat ttgtttgttg atgcctgaca 480
gttcacgta gtc aaattgc ctgcccctct caggtggaat gctcgag 527

<210> 1781
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1781
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaact gcctcgagcg attctctata 60
catctttccc tgcaaaagaa gtattttcaa tggtttactc caaactaata cttcaaaact 120
tctctccac tcaaaacttt cactcaatat ctagtctaac aagctgttgg gtggctgcct 180
acagtgcac atccctgcct ccattctcta tgcctcgag 218

<210> 1782
<211> 260
<212> DNA
<213> Homo sapiens

<400> 1782

gaattcggcg ccgcgtcgac ctgaatacct ttgaaaagaa cacaccctat cccattccctc 60
 caggtagcca ccattccttg acttatacca agcagccttg ctacaaaaca cttctgagtt 120
 tgctaagatc caagagacca gaccttctca tgaaccact gctgtcttct tgtcttctc 180
 tctgtgcage cacccttagca aggtcagtc tcagtcctgc ctccagtcac catccaaaaa 240
 taaccaccac ttccctcgag 260

<210> 1783

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1783

gaattcggcc aaagaggcct aaatttctac cagtttctg gatacagtga aatagctaac 60
 ctctgtttca agaatgcagt tattaagtca aaggaactta ctcgag 106

<210> 1784

<211> 149

<212> DNA

<213> Homo sapiens

<400> 1784

gaattcggcc aaagaggcct attttgctgc taagagtcc cgttttaatt gtcttgcttc 60
 tttctgaac tcttctctcg agtttgacc caaagatcat tgccagaatc ggccaaagag 120
 gcctaattga attctagacc ggcctcgag 149

<210> 1785

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1785

gaattcggcc aaagaggcct acttaaatct aaaagtagat ctctgacttg atattccagt 60
 ggcctggcct gtgaatcatt tctcgttgac tagcctgtct taactcaatt tgactaaaaa 120
 gtcttcacca agagatgta gttgcacctt ttctcgag 158

<210> 1786

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1786

gaattcggcc aaagaggcct attcttttgg acaaactga taaacttctt cagatacttt 60
 ttttttctt tggcaggaag gtgtcttgct gcaggctctg ag 102

<210> 1787

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1787

gaattcggcc aaagaggcct acccagattg ccagcgcagg ttggaagccg catatttgga 60
 tcttcaacgg atactagaaa atgaaaaaga cttggaagaa gtcctcgag 110

<210> 1788

<211> 149

<212> DNA

<213> Homo sapiens

<400> 1788

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tcgtgctctc ttttcacatt ctgtctacag caaatgcac cttttgccac attgtccct 120
gcacctcca tagatcacac aatctcgag 149

<210> 1789
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1789
gaattcggcc aaagaggcct aaaaaaagac atttattcag cgtcacgac agactgttac 60
atttagcaat caacagcatg ggggtgcaaaa aaaaaaaatc tacattaaaa ccctttgttg 120
gaatgcttta cactttccac agaacagaaa ctaaaataac ctgttatata attagtcaca 180
aatacagtcc tcgag 195

<210> 1790
<211> 233
<212> DNA
<213> Homo sapiens

<400> 1790
gaattcggcc aaagaggcct aagaaagttg gatttttttg aattttggcc tgtgcttcaa 60
ttccaaatcc tttatttgat ctggctggaa taacgtgtgg acactttctg gtaccttttt 120
ggacctttct tgggtgcaacc ctaattggaa aagcaataat aaaaatgcac atccagaaaa 180
ttttgtttat aataacattc agcaagcaca tagtggagca aatgagtctc gag 233

<210> 1791
<211> 123
<212> DNA
<213> Homo sapiens

<400> 1791
gaattcggcc aaagaggcct agatgggatt ttcattgtta cttttttcat ggcattcttc 60
tttaactgga ttgggttttt cctgtctttt tgacctgacca cttcagctgc aagaaggctc 120
gag 123

<210> 1792
<211> 131
<212> DNA
<213> Homo sapiens

<400> 1792
gaattcggcc aaagaggcct atgaacattt atataatcta acctggacat caagctgttc 60
tctctctctc ttttttttaa ttttattatt attatttttg caacatgtac atttctaaca 120
tcgtactega g 131

<210> 1793
<211> 127
<212> DNA
<213> Homo sapiens

<400> 1793
gaattcggcc aaagaggcct agggatctgt tgcctggaaag tcattgtgaa tttttttctt 60
ttcctctttt tatttgtata aatatatgag gtacaagtgt agttttgtta tgtggacctg 120
cctcgag 127

<210> 1794
<211> 107
<212> DNA
<213> Homo sapiens

<400> 1794

gaattcggcc aaagaggcct atggacgtag acattactct gtcctcagaa gctttccata 60
 attacatgaa tgctgccatg gtgcacatca acagggccat actcgag 107

<210> 1795

<211> 104

<212> DNA

<213> Homo sapiens

<400> 1795

gaattcggcc aaagaggcct aggacattct tatctcggga cacacacaca aatttgaagc 60
 atttgagcat gaaaataaat tctacattaa tccaggtagc cgag 104

<210> 1796

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1796

gaattcggcc aaagaggcct agagttagta agggttttat atctcttctg tccatattgt 60
 tttcaaggga atgaggtgtt taggtggctg gaaaagcatt tctaggaagt ggctcgag 118

<210> 1797

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1797

gaattcggcc aaagaggcct ataagtattg cctcaagaac tttccactat agaattctct 60
 ttttatttaa aacatgtatg tattttaaac tcaactgggt ctcgag 106

<210> 1798

<211> 124

<212> DNA

<213> Homo sapiens

<400> 1798

gaattcggcc aaagaggcct aacttaagta ctaatatctc agaaattttt gaaagcagta 60
 accttaattt cctatgtatt tcattccact ttgcatata ggtcaaatag caatgtgtct 120
 cgag 124

<210> 1799

<211> 155

<212> DNA

<213> Homo sapiens

<400> 1799

gaattcggcc aaagaggcct atgaaaataa cctatgattg tatgttttgc attcctagaa 60
 gtaggttaac tgtgttttta aattgttata acttcacacc tttttgaaat ctgcctagc 120
 ctctttggcc gattgaattc tagacctgcc tcgag 155

<210> 1800

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1800

gaattcggcc aaagaggcct aattatccaa aatgcttgag ccagaaatgt gttttagatt 60
 ttggcttttt ttttttcagg ttttagaata tttgtgtgt actggtgagc tcgag 115

<210> 1801
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1801
gaattcggcc aaagaggcct aagaattatt tttctctgta gaaacacaga taccacttta 60
tcagggaagt tagtcaaattg aaatggaaat tggtaaattg acttctcgag 110

<210> 1802
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1802
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gacacagtct ctgtctccat cagctgcagc cttcaccacc tcgatgtaat ggtctgtgaa 120
ctctgtccca aactcccggc ttgcacaaa gtccagcagg gtcacctggt ggctggaggc 180
atcatacaga aacctcgag 199

<210> 1803
<211> 259
<212> DNA
<213> Homo sapiens

<400> 1803
gaattcggcc aaagaggcct agtgtgcctt catcttgctg atctttctct ggetggcccg 60
gagctcgctc tgggtggcct gcaggctcct ctccagtgtg gccacctggt ccagcgtggc 120
ccggcgctcc cgtcactgt gcgcacact ctctcctgc agcgccagct ccgcttggac 180
cccgtcagc cgcccatcca cactgcgcgc ggcttctca ctctcagcca ccgcttcttg 240
cagctgcctg gccctcgag 259

<210> 1804
<211> 138
<212> DNA
<213> Homo sapiens

<400> 1804
gaattcggcc aaagaggcct agtcaggatg aaaaggaagt tngatTTTTT taaatccctc 60
ttcgcttgcT ttattttcag taccaacttg ttatcttttt cttatctga ggctacctgg 120
ggatgggatg gctctgag 138

<210> 1805
<211> 103
<212> DNA
<213> Homo sapiens

<400> 1805
gaattcggcc aaagaggcct agctaaattt ataggagttt tcagtaactt aaaaagctaa 60
catgagagca tgccaaaatt tgctaagtct tactattctc gag 103

<210> 1806
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1806
gaattcggcc aaagaggcct actgtttcca atacactggT agagtatcca agatagccag 60
aagaataaag acgacataa aacagtaaaa tgatcaggTg gtggctcgag 110

<210> 1807

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1807

gaattcggcc aaagaggcct acgagtgtta aagtgggttag aagggtgcta gtacttaagt 60
 gagatgtcag tgccttctgt gttcattact attacgggtat atgtgaatta cttgggcagg 120
 ttggggagagg ggtctaggtc atcaggatac ctcgag 156

<210> 1808

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1808

gaattcggcc aaagaggcct aacttcacgt atgggtgctt ttttgttctt aaattccttt 60
 cttttagtga tggggctctg ctgtgttact caggccctcg ag 102

<210> 1809

<211> 134

<212> DNA

<213> Homo sapiens

<400> 1809

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 agaatattga agtacttgcc agaagtcgtg gatttcagtt ttaacaaatg ctattaaagc 120
 ggagaatgct cgag 134

<210> 1810

<211> 109

<212> DNA

<213> Homo sapiens

<400> 1810

gaattcggcc aaagaggcct actttcactc ttgtaaaagc cacatatcca catctctttc 60
 attttctcag tgtgttatgc agcaatttat taaagtattt attctcgag 109

<210> 1811

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1811

gaattcggcc aaagaggcct aatggacagt ctgctactgt gcatgcttaa ctttgccttc 60
 tttactctgt cttttgatcc tgtaggggt ttggcaagg gtggagagaa aagtagagaa 120
 ggactcgag 129

<210> 1812

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1812

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 gtcattgggc ttcttttttt tctatgaagt tgtttaagt gataataata acaataacaa 120
 caatgaaagc aaatcaatgt tgcagcttga gagctggtgg ggccttgcc catagcagca 180
 cagaagagga gggaaggaag gacagcattg atgggggtct cgag 224

<210> 1813

<211> 154

<212> DNA

<213> Homo sapiens

<400> 1813

gaattcggcc aaagaggcct atggacctat tataattctt gtctggtttt gtccactgga 60
 gcaataaagg aaaatgctta tcttacttct ggagtttctt cagctcctgg gttcagccct 120
 caactattcc tcagcagggt ccttcaagct cgag 154

<210> 1814

<211> 139

<212> DNA

<213> Homo sapiens

<400> 1814

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 gttttttctc atggctcctt tggggcacag ctgcccggcc ccggtataca ctgtagttga 120
 ttgcagggaa aactcgag 139

<210> 1815

<211> 112

<212> DNA

<213> Homo sapiens

<400> 1815

gaattcggcc aaagaggcct actcatcttt tgtagattt attcctggat ttttttttta 60
 ttctattgta aacgatacca ttttggtant gttattttcc agtttactcg ag 112

<210> 1816

<211> 153

<212> DNA

<213> Homo sapiens

<400> 1816

gaattcggcc aaagaggcct atataaagca gaattcaaga ggtctcctgt agtattaatg 60
 tctgataaac agtgtgtgat tctcttctc aatatttctt tctttctgtc tctttgttcc 120
 ggtctctgta tatatattac tgattcactc gag 153

<210> 1817

<211> 103

<212> DNA

<213> Homo sapiens

<400> 1817

gaattcggcc aaagaggcct aaaaaatatt ccattcttat ctgtttgggt ttttaattct 60
 ggcttaatat ttggggttga gtcattctgt ttgagaactc gag 103

<210> 1818

<211> 118

<212> DNA

<213> Homo sapiens

<400> 1818

gaattcggcc aaagaggcct agtgaagcgg agttatgggt tcattcaata gagtattgct 60
 gattatactt gagtgggaac ctttcctcac gtactccac agacgtcggg acctcgag 118

<210> 1819

<211> 456

<212> DNA

<213> Homo sapiens

<400> 1819

gaattcggga aaagaggcct agcctgtatt tccagctact tgggaggctg aggtaggagg 60
 atcatttgag cctggggaaa ggaggttgca gtgagccatg atcacgccag tgcagtccag 120
 ccagcgcaag cgagtgaggc cttgtcccaa aagataaaaa taagaaaaac ttcattcttg 180
 gtctagacat ttgcagctga caaccattca acgatttggt ttttttttag tccatggatt 240
 aaacaatagt gggtaagaa tgctttttga actttccctg aggaactag ggaaccacc 300
 agtcagtta taattcatac tgtgctgcct gggcccgta gccttgccgt gtccatgtgt 360
 ccagtcctcc agcctacagt ggattttccg tttacatccc aggatgattt aggaatctc 420
 tccagttttc aacagaacca gctggggccc ctccag 456

<210> 1820

<211> 618

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (609)

<400> 1820

gaattcggcc aaagaggcct aggttaaagt tttattaat caagctttta aattatatat 60
 ccacctacag tctataaaca aatatagtag acatgtatgt aaaaggttag cagataagaa 120
 ccagtggaaa aactaaagt ccttttgac accggcacct catcacaaca cctcttggt 180
 gtggatgcc tggggccact gctgtagtca aaagttaaat gaaaaacca caagttagt 240
 ttgactcctg ctccagggt ggatttcatt cagatatttg ttcctatta taggagggtg 300
 gactctagca aggcacaggt gtggttttfa cattcacaga ttggctgaag tagtacaat 360
 tgagctgcta atctaggtgt ctccctccct gttaccatac ttcataagaa atgtgaatta 420
 aatgaacaa tggaccacag gtggttataa aaatagataa ctgcagaggt cataaatatc 480
 taccgttagt agagcagaaa cttctaaaat ttacctttt ccatatgtg cagaatatcc 540
 taagtatgtt caagagacac agtcagcaga ctccagagtg gtaattacaa gggcattggt 600
 aaagaaatna cactcgag 618

<210> 1821

<211> 575

<212> DNA

<213> Homo sapiens

<400> 1821

gaattcggcc aaagaggcct actgtgggga ggtattcaaa ggtttcctaa aacatcaggg 60
 aagttcgcca gggaaagact cgttggttaag catgttctag ggagagctag tggtagacag 120
 gccagggcca cagcaggcct ttagatggg ccagggtgctg ttacctgtg actaggggtg 180
 gtacttggcc ctgccctggc cctgtgtgg gcttaccctc tgcagagacc attgtggttc 240
 tctgttgcca gaggcaccca gaggtctgtg atctgcctgc tttagggcgg gaagggttgt 300
 tccagttctg ctttcccaag cgggtggtgt gggcaacct. tatgatccag gacgcatggt 360
 catcttaacg agcagctggc tttacacca gggcgagcag aggtcttaaa ttatgcccgt 420
 tgtctggag taatttagag cagcctcttt tgtattcagg catcctggtt tgcaggttaa 480
 ggtatgaata cagttgcctt taaacagcac gatgaagtgg gcgggttatt gttctcattt 540
 caccaaggag gataatgaac cttagcgatc tcgag 575

<210> 1822

<211> 288

<212> DNA

<213> Homo sapiens

<400> 1822

gaattcggcg ccgcgtcgac taagccctg tattatcaca aattgtcaca tgctgtcatg 60
 tattactttc tctttttctg taatgacct agccctccat attgtcatgt attgtcacgg 120
 attagcagtg cttattctga ccacgtagca gtgtgtttgg tgcagtgtgc taatcaagat 180
 ttagttaaat tattatactt tcatatgttg acttgatttt tcatgggact gatcgtggc 240
 gtggagccgg gcgtggaatg cgagtgccta gtgggccacc gcctcgag 288

<210> 1823
 <211> 167
 <212> DNA
 <213> Homo sapiens

<400> 1823
 gaattcgcg cgcgctcgac gacatgcaac taatagccct tgaacagcta tgcattgctgc 60
 ttttgatgac tgacaacgtg gatcggtgtt ttgaaacatg tcttcctcgc actttctttac 120
 cagccctttg caaaattttt cttgatgaaa gtgctccaac actcgag 167

<210> 1824
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 1824
 gaattcgcg cgcgctcgac ctttattttg aagaaaagaa aagaaattga agaagtgaca 60
 gaaaacttct taaatttggc aaacctaaat attcaagaag ctgggcaaac tcctaacagg 120
 aaaaactcag atccattccc agatactttt taagtaattt gctgaaaact gaaaacaatg 180
 aaaaaaatct tgagagcagc actcgag 207

<210> 1825
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 1825
 gaattcgcg cgcgctcgac gtttaaaaag gagtagccta agattaattt aaaagattat 60
 ttacagatga cacatttatg gggtcactat ttaagtaaat ttgctgcctt ccacagccct 120
 ctaattttat ttatatgttc cagcagatta ttaggatctg cttacttctt aggaagaat 180
 caatgctggc aacacattgt ttcagaaaca ccaagtctcg ag 222

<210> 1826
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 1826
 gaattcgcg cgcgctcgac cctaaaccct catattcttt ccctttatca catgttggtt 60
 cctctcctat gctacctggc cctttctctc ctctcccaac ttgccccaca gctgctcccc 120
 ccaaccacac ctgacctggc caaccctct actcaccctc tgag 165

<210> 1827
 <211> 145
 <212> DNA
 <213> Homo sapiens

<400> 1827
 gaattcgcg cgcgctcgac cttcattgct ctgtttgggt tctgttttg caagggcaaa 60
 aactgaataa aaattatagc attctatttt ccagccacaa atgtggtcct cagctctttc 120
 taattatata atcccattac tgag 145

<210> 1828
 <211> 205
 <212> DNA
 <213> Homo sapiens

<400> 1828
 gaattcgcg cgcgctcgac ctctgggttt gttcttatta tcattattga tgactttatt 60
 tgaagaaccc aaatatgttc tccccatttt ttccgatcac ttgttaatat ttttagtta 120

aatcattctc tggggagagt taaaagaagc agtccaggta gctgggttat tgtgtagagt 180
aacagataat tctgatgtac tctgag 205

<210> 1829

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1829

gaattcgagg ccgcgtcgac tttcttatta agcacaaaat ttaacttttt ttcagtctag 60
atcttgattc tccagaacca tgccttgggt tttctctctg tgtttctgc aggaaagtgg 120
atttatggtt actatggtct ctgggcttat agatgaactt ccttttaact gtttaatgtg 180
cacgctcgag 190

<210> 1830

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1830

gaattcgagg ccgcgtcgac actcccccac aacctctctg acacctcacc atttacacct 60
ccagacatac tagcccttta ttgtttctcc cccatggctg ttccttcttt ccttttgctt 120
ggagtacttc cctctctcac caagttcttc cccaatatct tcacagagtc gctcgag 177

<210> 1831

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1831

gaattcgagg ccgcgtcgac cactggctcat gtatttattc catatttata tgggtctactt 60
cctgtggctg ggagcagcag ctccctgaagg ttccgtgggg gtgcgggggg ttggacagga 120
cactccttct tgggaaggcat caattttccc agcccccttc ccattacaca cacacacaca 180
cacacacact ctcgag 196

<210> 1832

<211> 305

<212> DNA

<213> Homo sapiens

<400> 1832

gaattcgagg ccgcgtcgac gggggaaata aagcacatct gaaataattt tcaaaaacga 60
ttggcctctt caaagaagtc ataaatatct gacactcact gagaataac tggcaactta 120
catgatcccc ccaaatcttg agctaactat tcatagaggg gaaaatagat aatgtatagt 180
gttacttcca tttgatgata atgatgatga tgatgatgat tatttttggt attctaagac 240
tgagcttcgc tctgtcaccc gggctggagt gcaatggctg aatctcagct cactgcaacc 300
tcgag 305

<210> 1833

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1833

gaattcgagg ccgcgtcgac actccccctg tgggaagaac cagctctgtg tcttccctga 60
tgtcttcacc tgccatgaca tccccctctc ctgtttcttc cacatcacca cagagcatcc 120
cctctctctc tcttctctgt actgcacttc ctactctgtt tctggtgaca accacagatg 180
tgttgggcac aacaagccca gagtctgtaa ccagttcacc tccaaatttg agcagcatca 240
ctcatgagag accggcccat ctcgag 266

<210> 1834

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1834

```

gaattcgcgg cgcgctcgac ttcatttggg ttgtacatct cttaaactct ttcttcctct 60
gtcttttctt cccactttt ttttttttgc ttcattgctg tgacttggtt tggaaacctg 120
gtcagttatc ctgtagagta ctgtatttct cactccatat ttgtttgctt tcttgtgggt 180
ttaatttgtt cctctatcct ttggatttcc tataaaatgg aagtcctcga g 231

```

<210> 1835

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1835

```

gagccccag taagttattg cagatcaagt cgccacctgt ttctaggatc acagaagggt 60
cctatagatc agtctagcct acccggttta ccagtggaga aaccaagcac caggaaagga 120
attggccatg tcaactcagt agcaaacagc tgagttgaca ctggaagctg gaagcttggt 180
tgccagctcg ttgttcacat tatactcaag actcgag 217

```

<210> 1836

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1836

```

gaattcgcgg cgcgctcgac agaataacgt gcactatgat atctgtgttt gggttgtatg 60
atagtttttc atacactttc cttagcagca ttacataat taaggcatac ttcatttgca 120
cagacaatct gatttccctt acccttcaat cacaaccctt aaaaccccca attctcgag 179

```

<210> 1837

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1837

```

ctcgagaaat ggggaattgc ttgagaaagt ttcttttctg ttttctaat ggctttttgc 60
ctgagggaag gcctacgtta gccacgttag gtaatagaat ccagatagaa actactgtct 120
tactgagatg aagaaccaga tgacagagtt cagagtgtat ctatcagggt cgacgcggcc 180
gcgaattc 188

```

<210> 1838

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1838

```

gaattcgcgg cgcgctcgac tctcaatgga cagcttagtc aacggaagct cagagagggt 60
gtgtaacttg ccaaaagtcc cactaccagc tgaatgtccc caccgggtct gcaccagga 120
gtctgacaca gagccagggo ctccagacct ggcgatgttt tgggggtgtg agcagcccag 180
cctactctgg gcacgtgttt acttgctgtt ccttctgcct catgtttgtg tttgccccct 240
cgag 244

```

<210> 1839

<211> 148

<212> DNA

<213> Homo sapiens

<400> 1839

gaattcgcg cgcgctcgac ttcttaaccg ttgcaagca ctattccctt gccgaacctt 60
 taggatcggt gcatccgtga ttttcctaatt atttatcatg cgttttagtgc tagccttttg 120
 ttatgtatta tgcaggtgcc aactcgag 148

<210> 1840

<211> 596

<212> DNA

<213> Homo sapiens

<400> 1840

gaattcgcg cgcgctcgac atgaccttac gaagcttaac ccaaaggtag agagttcatc 60
 cctttatatt ctgcattttg taaaatgtaa acaatgctta tttgtgcaa aaataatttg 120
 ctactagtct ttgtggaatg tgacttgata aggagtatta ggaattgttc atatcaatta 180
 ttttaattac ttttttttca gtttgaaata gtttagagatt cgtagggaagt tgtgaaaata 240
 atacagagat ctctgttact tctcaccag tctttccagt ggggagaatc ttacaacact 300
 aatagtgaat tatctaggtc aggaagtgtg cattgggtata gtccacggac ctcaactaca 360
 tttccctggt ttgctgtaca tgtgtgtttc tcggcatgtc gtgtatagat gataaatact 420
 aatataatg tatagaacaa atctatacac atgatgttcc ctcctccgc ctcctgggga 480
 tctttcatat atactgcata tatatatgca tggaaacaa ctataacaaa tatatgtata 540
 gaataaatct aaactgcac atgtgtatag attgtttaag ccaccacaag ctcgag 596

<210> 1841

<211> 158

<212> DNA

<213> Homo sapiens

<400> 1841

gaattcgcg cgcgctcgac ctctggagaa tctatgcgaa tcaacctttc taccttaata 60
 tctcccaaaa aatgtatagt gccttgtttt tatgtacagt ttatatacag aaaagtttgc 120
 tctgcatttt tgatgatggt ttggaacatt atctcgag 158

<210> 1842

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1842

gaattcgcg cgcgctcgac ctaagaanaa ctaagatata aactaccaag tgctcttaag 60
 aataaaaata agaataagaa tacaaggag cactactctt ggctacacga aagatcttgg 120
 gattcatgac actgagggca gggagaagaa agaaccacag ccacgcagag aacctcgag 179

<210> 1843

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1843

gaattcgcg cgcgctcgac gtctcataaa aattgaagca aacctagaag gcatgaaaca 60
 tctggcagcc aattccagat gaagcttaat ttgacctacc tttgttttat tatctttttt 120
 ctttttcaca gaggtctct tgagcagtgt tgtgagttta acctagcaat ccatggagct 180
 gaactcgag 189

<210> 1844

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1844

gaattcgcg cgcgctcgac caggatttat ggaagagga aggaaggcac agaactgggg 60

caagggtctg gttttgttct gttattttgt tgcattgtt actgtttgtt tttctttttt 120
 tgagacagag tctcgcaatt gtccccagg caggagtga atggcgcaact cctggctcac 180
 tgcaacctcc acctccagc ttcaagcgat tctcgag 217

<210> 1845
 <211> 326
 <212> DNA
 <213> Homo sapiens

<400> 1845
 gaattcgagg ccgcgtcgac cacaactgga ttttttagtt ataacagcca gaactggagt 60
 cttccattcc agtgtatttt ccttcatttt aagggtgaaa taagacctgg atccaccaag 120
 gtcttgggac agattgaaga aagacctga gcagggtgt tttttgctc tgaaggctgc 180
 cttcctgaaa tctcatgagg ggactatgct tagttcctgc tgtttccaca gttcttagga 240
 aaatgcagcc tatcttcac ctaatttctc tgtcaacttc tgctctgtca acttctgagg 300
 gacattttaa gcaaccacag ctcgag 326

<210> 1846
 <211> 189
 <212> DNA
 <213> Homo sapiens

<400> 1846
 gaattcgagg ccgcgtcgac acgtaattct ctgcatttgg cactacatac gagaaatata 60
 attttaatta gtacttcaaa gcatactaaa tttctaattc attgtgagct ctattcattg 120
 atattatttc attttgacat tgacagtaaa atagggtgaa gtatgcttat taaaaatga 180
 actctcgag 189

<210> 1847
 <211> 180
 <212> DNA
 <213> Homo sapiens

<400> 1847
 gaattcgagg ccgcgtcgac caagagtatt tttatcaagg gtgagagtct aatgaagtca 60
 atcaaattat cctatttaat cctaaattat catagttatt ttataaatac cagaaanaca 120
 agcctttctg cagtatctga gaaaatgtgg tatgaccatt caatccatgg gcacctcgag 180

<210> 1848
 <211> 117
 <212> DNA
 <213> Homo sapiens

<400> 1848
 gaattcgagg ccgcgtcgac ttgaattcca gacctgcctc gagctactta tttataatc 60
 tttgtggcta gacctggaat gctggcttgg tatttctggg cctctctccc tctcgag 117

<210> 1849
 <211> 407
 <212> DNA
 <213> Homo sapiens

<400> 1849
 gaattcgagg ccgcgtcgac ccagctgatt ctgacttttg ttctattgtt tcagttgatt 60
 ttgtttacag tcttttaaga ggcattggtt tgcctcaaac atttttacct gttttctttg 120
 tgtacttaag aatgactggt ttactcccaa attgtgctct aaagtacagt cctctttctt 180
 ggacaggatc catgctgcag aatgggtgtc ctgattttga gaccaagtct ttgactatgc 240
 actctattca caattctcaa caaccagga atgctgccaa atctcttca agacctacca 300
 cagaaactca gttttcaaat atggggatgg aagatgttcc cctcgccacc agtaaaaagc 360
 taagtcccaa tattgaaaaa tctgtaaaag acctccggca actcgag 407

<210> 1850

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1850

gaattcgcg cgcgctcgac gaaatatttc totaagaaaa ataattttacg gattgatctc 60
 tgtcttaaaa atgacctttg catcttgctg tagccttcag caaactgcat ttgttgcttt 120
 gcaggacagg gcagtggttcg ggttgaagtc ctgtgttctg atcgggattc tcgag 175

<210> 1851

<211> 194

<212> DNA

<213> Homo sapiens

<400> 1851

gaattcgcg cgcgctcgac aaacagtga tttattgggtg ttctagaatc attaaattcg 60
 cttagagaatt tgcctagtga tttggattgc tttctgaaca tttttctgtt cttctgtagt 120
 gctccctctg agcattgtag aagtgttcca gcaccttat gaagaccaca ttcattttgt 180
 cagggatact cgag 194

<210> 1852

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1852

gaattcgcg cgcgctcgac tgtacttagg tgcatttttt ctatgtcgtt tctcttttta 60
 tttggatgaat accaaaacgt tagtatctta aacatatgct ttagttctga cactgaattt 120
 gtatgtacga tatgttatct cggtatagta gtctcctctt atctgtgggt tctgttacct 180
 gtgttcaact atgggtccct cgag 204

<210> 1853

<211> 199

<212> DNA

<213> Homo sapiens

<400> 1853

gaattcgcg cgcgctcgac gtatatagta ggcactcagc ataaattcgt tgaacaaaat 60
 aaataagata tagagccact ggagcacaga ggacagggtc tttctggtcg aaggcactaa 120
 ggacagtttc accgagaaga ttttgaggag agtcgagcta aaaatgagga ggattttgat 180
 agaaggatgg atactcgag 199

<210> 1854

<211> 149

<212> DNA

<213> Homo sapiens

<400> 1854

gaattcgcg cgcgctcgac ctgtatcaaa tggaacataa tataataaat gtaaatgtaa 60
 catgttataa tcattgttaca gtcattacta cccctcttat ctcttccatg acgtcttttc 120
 ttatgtttct tcatcccca ttactcgag 149

<210> 1855

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1855

gaattcgcg cgcgctcgac ctttgccttg gtagtctttc cagaaaggat aaacagtgg 60

ttttgttttg ttttgtttta ttgtttaagt gggaccactt agcttcccggt ttccttacta 120
gttaaagaac agacattaat tttcagttga atgtattttt gcaggcatct actcgag 177

<210> 1856

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1856

gaattcgcg cgcgctcgac ggacaaagaa tgcccatca ctgccctcca gaacatgcta 60
caaaacttgt ctctgctctc tcagctcctc ttccctttcc tgagctgctc ggatctcttc 120
ctcaatcatg gacaaagtcc gctgtttcct ggacctcagc ttgaaaggcc caaccatcac 180
gtcagattct tgagtggcca ggaggagggc tgtgtctctc agctcagctg cctcgag 237

<210> 1857

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1857

gaattcgcg cgcgctcgac tgggtttgtt acagagcagg agaagcagag gttatgacag 60
ttatgcagac tttccctctc cttttctctc tttctcttcc ccttgctttt cactgtttc 120
ttctgtctgc cactgggccc ttgaattcct gggctgtgaa gacatgtagc agctgcaggg 180
tttaccacac gtgggagggc agcccagtac tgctcctctg ccttccccac tttgagaata 240
tggcagccca actcgag 257

<210> 1858

<211> 238

<212> DNA

<213> Homo sapiens

<400> 1858

gaattcgcg cgcgctcgac cagccatact cctctcgatg ttcagatgct ccttctcttt 60
tcttctctgc cgtgccgttc tgccactctg ccagttctct gctcttctgc tcttggagcc 120
tgggttttg ggtttctacg ggtacaggat agggaggcat ggcggggcaa aagcaacact 180
tgagttcgaa aacaggaata cctgttccca tttagggcgc caggtttcca agctcgag 238

<210> 1859

<211> 160

<212> DNA

<213> Homo sapiens

<400> 1859

gaattcgcg cgcgctcgac cagaagtatc ttggtgactt ttttgagtta agccatccat 60
cagtatttct tctctctggg tagtagttaa catgaatttt aatctttgtt ttgctttgct 120
aataactggt atattttcag gctatgccca cccactcgag 160

<210> 1860

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1860

gaattcgcg cgcgctcgac tataccttca cccaagctct tctctctcct taagtcatec 60
gtctacagtc agtccacccc caccagctg ctcttctctc tccttctcat acaaaacttg 120
agtgtcatct cctccaagaa gacttttcaa ctctgtaga ccaatgtttc tcaaaccctt 180
tttactcgag 190

<210> 1861

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1861

gaattcgcg cgcgctcgac tgcttctgca aaactattac tggtgataaa gttctttttc 60
 attgcttaat tttcttctct gttacagtt acaaagaagt ttttctgag atggacatga 120
 tggctcacac atgtagtccc agcttactcg ag 152

<210> 1862

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1862

gaattcgcg cgcgctcgac gagtgggcag ctgtgtgttc taaattgggt catgttgggc 60
 aaagggtcac ttttaaaaat tatgttaaaa gttcttacat atccactcga g 111

<210> 1863

<211> 199

<212> DNA

<213> Homo sapiens

<400> 1863

gaattcgcg cgcgctcgac caattcttag caaaggggaa tatcgaattc agattttgaa 60
 aaaataagtc atcatgcttc ctaaaataag acagcttctc cctcttaactg ctctctctgc 120
 tctgggtattc tatctaataca taaaccagc tttattattc atttcaactc ctgccaaaga 180
 catgaggtcg gcaactcgag 199

<210> 1864

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1864

gaattcgcg cgcgctcgac attgaaagct agaagaaaag gtgtacttgc aagaacctc 60
 aggacttgag taacagcaac atggttaagtt ttctaagttt tcttttcgtc tcccatatac 120
 gctgggctgt gctggaatca ccaacaggca cagaaaaaat gacaacaaa caacaacaaa 180
 aaaaaaaga atatctgtt ctctttggcc aaagtccagg aaaggggagc cccaacagag 240
 acccagtaca gctcgag 257

<210> 1865

<211> 135

<212> DNA

<213> Homo sapiens

<400> 1865

gaattcgcg cgcgctcgac gacagaaact gagaaaatga cacacttggg gagtttggtc 60
 gaattaggtc tgtcttctac gtttagtaca atctcacc ccaatgtccaa agaaatattt 120
 atggtggcac tcgag 135

<210> 1866

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1866

gaattcgcg cgcgctcgac cccttccttg cacatagcag gtacactcct acttcattgc 60
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 tccctgtctc ctttgagtct ttgctttaac caaatattat cttttcagat aggtcttccc 180
 tgctcgag 189

<210> 1867
 <211> 237
 <212> DNA
 <213> Homo sapiens

<400> 1867
 gaattcgcgg ccgcgtcgac aacatctgta ggaggcctac cctttactaa tttcttccct 60
 acttacttag ggggtgtccc ttgtgattca gttttgttac tttaaaaata attacaaaca 120
 aatctatttt totcactaaa gtaccaaaata aatcagaatc tttcactctt ttaaaacaga 180
 cccttcctga tgtttgtctc tttgcttttc ttgtctgttt atgcaattcc actcgag 237

<210> 1868
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 1868
 gaattcgcgg ccgcgtcgac ctttctttat gttgttgtga cttctgatgt ctacaccgga 60
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 ctgtgtcacc cagactggaa ttcagtggca tgatttcagc tcaactgaaac ctctgccacc 180
 agggttcaag cgattctctt ccttcagcat cctgagtagc tgggattaca gatgcctgcc 240
 actgcacacg tttgagcaga ccaattatga ggcaattctc ctaactctgc ttccagaagg 300
 tctcgag 307

<210> 1869
 <211> 179
 <212> DNA
 <213> Homo sapiens

<400> 1869
 gaattcgcgg ccgcgtcgac aaatttaatt tttccttttg ttacttttca tttgcctcta 60
 attttgcttg ctcatatttc tggccaatgt acagcctcat atttttcaga gtaatacaga 120
 tacttgttct cattccgtat atgagcaca gtaaggtttc agagcaacac acactcgag 179

<210> 1870
 <211> 200
 <212> DNA
 <213> Homo sapiens

<400> 1870
 gaattcgcgg ccgcgtcgac cgctatatga tttctgtct tttcagcctg tttttcttct 60
 cctcagccac ccttaccttc tgtttttggt tcctttttat tctcattctt ctggctgcat 120
 tctcttctcc agtttcatgt ctcccttct cctcttgctc tgtacccctt ggcccccaag 180
 ttctctccca accactcgag 200

<210> 1871
 <211> 137
 <212> DNA
 <213> Homo sapiens

<400> 1871
 gaattcggcc aaagaggcct acaattcttt cgaggactgc gaagagggga aaaaacgacg 60
 agatgaaatt gtacttggtc gcagccgtgc tgatgtttgt acttgctgta cacacagagg 120
 ccccgaggga actcgag 137

<210> 1872
 <211> 196
 <212> DNA
 <213> Homo sapiens

<400> 1872

gaattcgcgg ccgcgtcgac cattatctcc ccaccccaga tttcttctga cttgaattcc 60
 tgctactctc tttttgtttg ctctgctcta accctactgg ctgccttcta cctctgggtc 120
 ttcgcaetgc tgtttcctta gccttaaac ttcttcagcc gcttacacca tgaacctttt 180
 catatcctta ctcgag 196

<210> 1873

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1873

gaattcgcgg ccgcgtcgac gcattgagcaa gaaactgcct gctttacaat tgccattttt 60
 atttttttta aataaactctg atattttccc cactctctca ttgtttttta tttttatttg 120
 tggatatacc attttattat gaaaatctat tttatttata cacattccct cgag 174

<210> 1874

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1874

gaattcgcgg ccgcgtcgac gaagtctgat cactctagga tgggtgaaac gaggttctct 60
 ggagaacata ttggaaataa taaagttagt tgctgatca gttgtttcgt tactctgtct 120
 ttttcgttgt tggtgttgag atggagtttc gttcttggtc cccaagaact cgag 174

<210> 1875

<211> 106

<212> DNA

<213> Homo sapiens

<400> 1875

gaattcgcgg ccgcgtcgac attttatctc acctacctca aatatttctt ttttttttaa 60
 tttaaaaaag atgaaacact tgaccaattt gcgtatcatc ctcgag 106

<210> 1876

<211> 246

<212> DNA

<213> Homo sapiens

<400> 1876

gaattcgcgg ccgcgtcgac tgctctgaac gcttcccat atttctatt ggaaaaataa 60
 ggtttgtttt ccagtaagat atttcatttt ttaaaaaaat ctgcttctac tcaaggctgg 120
 ggttctattt gtttttaaat gaagccacc aaacctccca agtgcaactc agatttacat 180
 ctggctaate ctgcaaatat gaccaacca attcatgctg tttattttat ttattttttt 240
 ctcgag 246

<210> 1877

<211> 236

<212> DNA

<213> Homo sapiens

<400> 1877

gaattcgcgg ccgcgtcgac tattgaaaaa tattatttat aagtacttgc cttatttctt 60
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 gataatttgt ttccaacac agtgtatcca aaataatttc tgtggaatat taatttgaa 180
 ttgtcatgga aaattctaaa ctagaatttt attacacgaa agcaacaaca ctcgag 236

<210> 1878

<211> 385

<212> DNA

<213> Homo sapiens

<400> 1878

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gaattcgcg cgcgctcgac ggctattatt ctcatatttg ataggtttcc ccaagaatta 60
tctgtttcca cagacactgc ataggttcca ttagttgctg tggaaagtga agtaatttat 120
tctaggaaact gtgactgtgt gctgtgaaaa gattgcattt tgtaacata atttctacgg 180
cgttctgttg atggggcctc tcaaatactt cttggacctg ttcccttcac ttcttctcca 240
ctgtcttagt tcacaccctt gcctgcactt ccatgttttt agtttgtttc cattcatcca 300
tctcgccat ggctccctga gtgctttttc tgaacaaac ctgatcattt cacttctgg 360
aacaccctgc cacataccac tcgag 385

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<210> 1879

<211> 255

<212> DNA

<213> Homo sapiens

<400> 1879

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gaattcgcg cgcgctcgac gcctgttata cttccaagtg gagatgttga gtagacagat 60
ggatgtatga atggggcagg gggatccctg aaggaggagg tataaagggt ggagtcatta 120
acatacagac agtacttgat gtcataagag atgatcagat aattactaag aggcataata 180
tagatgagaa aaggattgag ccgtgagcac tcccacctg aaagtctggg gatttgagaa 240
tgaccagac tcgag 255

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<210> 1880

<211> 170

<212> DNA

<213> Homo sapiens

<400> 1880

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gaattcgcg cgcgctcgac ttatggccct ttagtaatat gtttaacta acatgttctt 60
tgtacattgt tttctgtaca acaacgtatt tggccctaaa ctgcattggg cagtttagaa 120
cacacatcca tcattgtaaga tacaagcagt atgatggagg cgctctcgag 170

```

<210> 1881

<211> 647

<212> DNA

<213> Homo sapiens

<400> 1881

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gaattcgcg cgcgctcgac agattgacca cattgatcac aatatgggag tctggagaac 60
ggttaccate ctcagcagcc tcctetacta caccaacttc atcttcgaca ccttctgtgg 120
cttcagtagt ttcaaaagggt ggcctttcca ctggagttgc ttcacttagc tctacaatca 180
acctatgttg acatttatc agaacagctg gggatcaacc gtttaacctg tccacagtgt 240
cgagtgcctt cccaatggtc agccaccag tctttggtct acattcagcc agctcagggc 300
attcagaatt tgggtggtttg gggacacttg gtacaccac agccttagcc gcacatcccc 360
aactagcate ttttccagggt gcagaatggg ggcgaacaac tgatgctcat actcgtacag 420
gagcaacctt ctttccacca ttactgggaa ttccaccact atttgctccc ccageccaga 480
atcatgattc ttcttcattc cattcaagga cttcgggaaa aagtaatcga aatgggtccc 540
aaaaagggtg aaatgggtca ataaatggaa gtaatacatc atctgtaatt ggtatcaaca 600
catctgtact atccactact gcttcaagggt ccatgggact cctcgag 647

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<210> 1882

<211> 545

<212> DNA

<213> Homo sapiens

<400> 1882

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gaattcgcg cgcgctcgac cttgagaaaa accctcataa gcagaatcag agaaaaactt 60
ctggacattg tactgtcttt aggagttcac agctttccaa atttgataaa ctaaaaatcc 120

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aagctctacc tggtaggcag cttgtggttg tggtcagaga aagctttaat cataagtagg 180
 gtgattggtg gaactccttt cctcctaatt ttctcttaaa ctgcctgaag tttttcaatt 240
 tactttttca tagtaccoca aattctacta gagataagtt tgtgggaaga gtgccaaata 300
 gaaggtacag tacaagtaga aggcaaggag gtagcatatg tatctggaaa acagtaaata 360
 aatcagtgca tgaactgaa aaatacaccg tcagccacac tgcctccaa aactgtattt 420
 ccagcgttct cctggacctt ctgggcactt ctaattgctt attattatta ttttcagaaa 480
 gtgtctcact ctgatgcagt ggcgcgactt cgcctcaca caaccttcac caaccaggc 540
 tcgag 545

<210> 1883

<211> 175

<212> DNA

<213> Homo sapiens

<400> 1883

gaattcgagg cgcgctcgac tgagtccttt ggtaacgggc ataatactca caaggaaata 60
 aatattcagt tccatggcat ttgcaagaca catgttcttt aggacagtta atattatgac 120
 acatctgttt tattttgtta ctaaggcagc ctatgttaaa ggtctcgtc tcgag 175

<210> 1884

<211> 336

<212> DNA

<213> Homo sapiens

<400> 1884

gaattcgagg cgcgctcgac cctgtgactt ctcaccagct tcccttcac ataggcogct 60
 gcttctcttc ttccaagggt tttccccgtt ttgcctcct ggaggttgta tccctgggtgt 120
 taggagactg ggttccggac acattcccca cagaaggata gcaggacctt agaagatctt 180
 tttctttctt ttcctgggtt cctcttctt gcaagagggt tgaataggat ggtctctaaa 240
 atcctgttgt tttctgggt tatattaacc caggccataa tgataagaac ctgctctgaa 300
 ttcaaacat gtatttatat aacagcaaa gctcgag 336

<210> 1885

<211> 536

<212> DNA

<213> Homo sapiens

<400> 1885

gaattcgagg cgcgctcgac aaggcatcca aaagatagggt aaatccctac tggactttgc 60
 tgggtgtctt gttgcatagt tacctggag taagtaatcc tagttattta tatataatca 120
 tcatttaact gcttgcttcc cccacaatgg aaccactttt tatgtccata atcctatttt 180
 caccaatatt gggggtccag ctccaatacc aagtgttaaa acagattcaa cagttagcca 240
 cgtaactaa cttaacttct tgttacattt gtacctcagg atcactatca gctgaagttt 300
 taccattacc attagaagat atagtcaagg tcaatgccag agtcactgtt gccaccagc 360
 cagaagttac atatcccagt ccagctgtgg aaagcttatt cctaacagtc ttatctcaga 420
 tcataagaaa caaccctaat ttaaatctta caaatgcccc aaatcctgta aggggttttc 480
 acaacctaac ctcagacagc caattcccaa tttgtttcac ttcccacat ctcgag 536

<210> 1886

<211> 411

<212> DNA

<213> Homo sapiens

<400> 1886

gaattcgagg cgcgctcgac cacagaaatg cagggaccat tgcttcttcc aggcctctgc 60
 tttctgtgta gctcttttgg agctgtgact cagaaaacca aaacttcttg tgctaagtgc 120
 cccccaaatg cttcctgtgt caataacact cactgcacct gcaacctagg atatacttct 180
 ggatctgggc agaaactatt cacattcccc ttggagacat gtaacgacat taatgaatgt 240
 acaccaccct atagtgtata ttgtggatct aacgctgtgt gttacaatgt cgaaggaagt 300
 ttctactgtc aatgtgtccc aggatataga ctgcattctg ggaatgaaca attcagtaat 360

tccaatgaga acacctgtca ggacaccacc tcctcaatgg caaccctcga g 411

<210> 1887

<211> 130

<212> DNA

<213> Homo sapiens

<400> 1887

gaattcgcgg ccgcgtcgac gtgtgtgtag gatgccacaa acaaacccca gggcccggt 60
gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgttagga tgccacacac aaaccccggt 120
cccgtcgcag 130

<210> 1888

<211> 495

<212> DNA

<213> Homo sapiens

<400> 1888

gaattcgcgg ccgcgtcgac taaaccgcct cctgtgtgct tcatggccat ggtcctttct 60
gcctgtgttt tttctttttt ttctcaaccg tctctttter ggctccctta tttctctgtc 120
tgctcccggt tccctctttt gccttggtgt tttctctcct gccgtccgt ccacacgctt 180
cccggttcc tgcccgccca gggcattgcc acaggggaagt accacgcgc ggtgctcacc 240
aacagcgtg agtgggaggc gcctgtgtgt aaggcgggca ggaagtgtgg ggacctggtg 300
caccgctgg tctactgccc cgagctgcac ttcagcgagt tcacctcagc tgtggcggtg 360
atgaagaact cagtggcggg aggtttggag cctcgaacct ggagcgtgcc acatgggtgg 420
agccgggcag gcggagccct gccttcaggg tgctgggtgca cccagggagc tggggccccc 480
cagaagcaac tcgag 495

<210> 1889

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1889

gaattcgcgg ccgcgtcgac gccttgacac acttatagaa tgggtggagag aaaagaatgg 60
ttccttttgt tcccggtta ttatcgtatt agacagcgaa aattcaacc cttgggtgaa 120
agaagtggag aaaattaatg accagtatat tgcagtgcga ggagcagagt tgataaaaaac 180
agtagatatt gaagaagctg acccgccaca gctaggtgac tttacaaaag actgggtaga 240
atataactgc aactccagta ataacatctg ctggactgaa aagggacgca cagtgaagc 300
agtatatggt gtgtcaaaac ggtggagtga ctacactctg catttgccaa caggaagctc 360
gag 363

<210> 1890

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1890

gaattcgcgg ccgcgtcgac gcagacgatt ttagttacc tagattgtga acgatcttgt 60
gaagctgaca ttttgaagaa caccagttat aagggtattt ttcagttaat gtgcagtaaa 120
agttgctgtg tttatttcca taaaatttgc tggaaaaagt tcaagaattt aaagtatcca 180
ggtgaaaatg atcaggtatt atattcgttc ttaaaactac aacagcattt cttcctctac 240
cctttcctct tttgttctct tccccatcgt ttcttctgt tcataacttc cctcctgctt 300
tttacttctt cctttttttt tttttcttta acttcttct ttgttcttcc ccaatctctc 360
gag 363

<210> 1891

<211> 425

<212> DNA

<213> Homo sapiens

<400> 1891

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gaattcgcgg ccgcgtcgac gccggaggag aagggaagga aggggcatca cagggcaaag 60
gctgggaggg ttcaagtctc aagatagaga ggccacggcc agctgctcac ccaaagagaa 120
agcactttta actctagagg taccacacag gcaatataag atggatatta aggtcgtaga 180
ctctagagac aattggaact gaagtctaaa cagctagcag gaacttagac agtcaatta 240
atcattctaa gcttgcttcc ttgtctgcag aatggaatag taatagcctc atcatagtgt 300
tactgtgaaa ggtaaatgtt tataacatgc ttactaaaat gcctgttttt atagtaagt 360
ctcaataact agaagctatt actcattcat gtattcaata catattactg agtgcttacc 420
tcgag                                     425

```

<210> 1892

<211> 304

<212> DNA

<213> Homo sapiens

<400> 1892

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gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctataacagt gcaataaggg 60
aaataacatg caggatatct actttattat ttccctacac ctttcatggg ggtgggggct 120
acagatgggt cctcactgtt gcatgacatg tccggggagt gctgatgttg cctgttggac 180
tgaaaacctgt ttggtatttg agacacactc ccaccccatc aggcctctgt gcacctaccc 240
tggtaccaga ccaccacagg acatcaggga agtttgctg agaccccaag tgcgcagtct 300
cgag                                     304

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<210> 1893

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1893

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gaattcgcgg ccgcgtcgac ccgtctccca catccttctt gaggggatgc gcttgccttt 60
ctgcttgaac tctagtttga ttttctctgt gctggggtca ggggagtctc aactgctgac 120
agagaatgag gacttttcca ccacacccc ccacttctct gtttctgaat gctgctgtcg 180
ggctgcctgg gccaggtctc atggggccca gctggaggct tccctcgag 229

```

<210> 1894

<211> 437

<212> DNA

<213> Homo sapiens

<400> 1894

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gaattcgcgg ccgcgtcgac cctgcccag cctgttttat acacaccccc ttatatag 60
ttgtccctc tatgtccttt cttccctttt ctttttcac ttggtttcaa aatcatttgg 120
ctatgagcaa gttataacta taactggacc tgacttttgg caatattcac aactatttag 180
gagttcttgc aaagacagaa aaatcaacct acaagttgtt ttcaaaatac tactcatttt 240
ctttagttag cattccacgt ttttagacat ttaattaaat atttatgttc aatttggttt 300
cgtttgtttg tttgttgttt tttttgagac aatgtctcgc tctgttgctt aggetggagg 360
gcagtgggtat gatcatggct cactgcagcc ttgacctccc aggtccagc aatcctccca 420
cttcagccac gctcgag 437

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<210> 1895

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1895

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gaattcgcgg ccgcgtcgac gtaactaaat acctctttac ttacttgcta ttataaggt 60
cccttttggg ttttgtttat taataatcat ctagaattca aataaatgca tatgccactc 120
ttgccactcc tcttcagcat agtactagaa gtcctagcca gagcagtcag acaagagaaa 180
gaaataaagg gcatccaaat cggtaaagag gaagtcaaa tgctcagttt tgccgactat 240
atgatcattt accttcaaaa ccctaaggat aacctcgag 279

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<210> 1896
 <211> 252
 <212> DNA
 <213> Homo sapiens

<400> 1896
 gaattcgcg cgcgctcgac aggaaccaca gcaatgaatg gctttgcatc cttgcttcga 60
 agaaaccaat ttatctctct ggtactatct cttttgcaaa ttcagagtct gggctctggat 120
 attgatagcc gtctaccgc tgaagtctgt gccacacaca caatttcacc aggacccaaa 180
 ggagatgatg gtgaaaaagg agatccagga gaagagggaa agcatggcaa agtgggacac 240
 atggggctcg ag 252

<210> 1897
 <211> 127
 <212> DNA
 <213> Homo sapiens

<400> 1897
 gaattcgcg cgcgctcgac cctgtcctgt gctaggtctt taaegtctt cccagatgtt 60
 atgtcccttc ccttgggtggc tgetgtcttc tgccacattt taccttgccg ttcgcacca 120
 tctcgag 127

<210> 1898
 <211> 441
 <212> DNA
 <213> Homo sapiens

<400> 1898
 gaattcgcg cgcgctcgac aaataaaca cttagtact cttagatttc agaaatgctt 60
 tttaggatgg tcaacttgtt ttggggacaa atggcaagca gttatttctg gagaggtagt 120
 gaacatggcg attccactca ctggctggtt gggctcttcc ttccctttcc tcccgagag 180
 agccccctgt tgagctctgg cttggccctt gaagtgtctg cggctgacct ggggaacttt 240
 ccctggggtc cactgtctga ttgttcaaat ggcaagccag cagccgctgc aacacctgt 300
 cctcacacac acgtgtcctg tcaacctctg cagctgcgtc tgcgcccccg ccacacacac 360
 actgcctctc accctctgac actaatctgg ctcttctccc tgagccctc ctccctgacc 420
 tgaccagggg tccctctcga g 441

<210> 1899
 <211> 313
 <212> DNA
 <213> Homo sapiens

<400> 1899
 gaattcgcg cgcgctcgac gttgaattct agcgtctgtg gagaagaaag tcatagagtt 60
 atcagaactt tgaggccttt ggttgcataa ggagtttatt ggatatagat tttttgttgc 120
 ttggtttttc tcagtctaag tgataataaa aatgataact aacatatata tagcacaatg 180
 cctggcattt tcaacatggt ttccatctac tgagatattt aacttgccaa gccatcttag 240
 gtatacagtt acagtagtcc tctgccttat ctggtttcag ttaccacacag tcaaccacgg 300
 tccggaactc gag 313

<210> 1900
 <211> 237
 <212> DNA
 <213> Homo sapiens

<400> 1900
 gaattcgcg cgcgctcgac accgtcgatt gaattctaga cctgcctcga gccatcggc 60
 caccacacac cttcttattt tctgtcctag gtcctgcttc tcaatttttt caaaaaaaa 120
 ttgtattaga atatgcataa cataaaagtt accattttta ccatcatggg gctttgtttg 180
 tttgtttgtt tgtttgtttt tttgagacag agtcttgcct tatcaccacac gctcgag 237

<210> 1901
 <211> 315
 <212> DNA
 <213> Homo sapiens

<400> 1901
 gaattcgcg cgcgctcgac gtgcatttgg tatacaccac gggggccctg gaaccaagac 60
 ccttccttc tgctttgctt actggctgct gtgactctta ggagctctcc tacttggtcg 120
 ggggttcctt cccagctctc tttgctgttt catcctttgc tctgctcttt aatgttagcc 180
 agcatccagg gctcattcct ggggcccttt ctattctctc tacacatgaa cctggtgggt 240
 ctctcccagt cctggttgt aaataccagc tataggccta tgacttcca gtctcaatct 300
 ccagccagac tcgag 315

<210> 1902
 <211> 304
 <212> DNA
 <213> Homo sapiens

<400> 1902
 gaattcgcg cgcgctcgac gtgagaatca cttgaacctg ggagacagaa gttgaagtga 60
 cccagatca caccactgca ctccagcctg ggcaacgagc aaaactccat ctccagaaaa 120
 aagattgggg atttaatttt cgttaggcct tacgtcctta gaagataaga tctagttctt 180
 tttttctgt cttttaacat ttatgtttta aatatacaag gaatgcagaa tgcattatta 240
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 cgag 304

<210> 1903
 <211> 364
 <212> DNA
 <213> Mus musculus

<400> 1903
 gaattcgccc aaagaggcct aatttaaaag aacacaaaac tattaatgat taatatgtta 60
 aaatgtacaa tggtagttaa atacttttct tgacttaatt actgctttga actttattaa 120
 tgtatgattt ttgtaggcat ttttgggtat tcttttacta agtattttta atttaacgaa 180
 ttcttaggtg gctgtgctgc taatggatac ccagggtgcc tttgatagcc agtcaacct 240
 taaagactgt ggcacagtgt ttgtcttgag cactatgacc agctctgtgc aggtatataa 300
 tttgtctcag aatattcaag aagatgatct tcaacatcta cagttattta cagagtgtgt 360
 cgag 364

<210> 1904
 <211> 500
 <212> DNA
 <213> Mus musculus

<400> 1904
 gaattcgccc aaagaggcct agggaggaaa gtttcatcag cctctctggtg ctctactgcg 60
 ttctggctgc cactccaaact gctattattt tcattggtga aatatccatg tatttcataa 120
 agtcaacaag ggagtcctcg attgctgagg agaaaatgat cctgacaggg gactgctgct 180
 acctgagccc cttactccga aggatcatca ggttcatcgg ggtatttgca ttgggacttt 240
 ttgtactga catttttgta aacgcggggc aagtcgtcac tggtcaccta acaccatact 300
 tctgacagt gtgccagcca aactatacca gtacagactg ccgggcacac caacagttca 360
 tcaacaatgg caacatctgc actggggacc tggaaagtgt agaaaaagct cggaggtcct 420
 ttccctccaa acatgctgct ctgagcaatt actccgcctt atatgccacg atgtacatca 480
 caagcacaat caaactcgag 500

<210> 1905
 <211> 514
 <212> DNA
 <213> Mus musculus

<400> 1905

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gaattcggcc aaagaggcct atttcattcat ggagctctcg cggcggatct gtctcgtgca 60
actgtggctg ctgctcctac cgttcttact gggcttcagc ggggatctg ccctccactg 120
gcggaagccc gaaggcaagg aagtatggga ttatgtgact gtccgaaagg atgcccacat 180
gtctctgggtg ctctattatg ccaccaaccc ttgcaagaac ttttcagagc tgccctggt 240
catgtggctt cagggtgggtc cgggtgggtc tagcactgga tttggaaact ttgaggaaat 300
tgccctctct gacacccaac tcaagcctcg aaataccacc tggctgcagt gggccagtct 360
cctgtttgtg gataatcccc tgggcacggg cttcagctac gtcaacacaa cagatgccta 420
cgcaaggac ctggacacgg tggcttccga catgatggtt ctctgaaat ccttctttga 480
ttgccataaa gaattccaga cggttcaact cgag 514

```

<210> 1906

<211> 444

<212> DNA

<213> *Xenopus* sp.

<400> 1906

```

gaattcggac tactacaggt ggcctacacg ctttttccta gcctgaagat ctctgctgca 60
atgatgagtc ttaagacggg ggggtgatcca tttttatcca gtttggtaca tggaaatcgt 120
accagcgatt ttgaacgcac gtctgtgagg tggaaaccaga aggtctgttg aactgtggga 180
ttggtgtttc caaagaatga gagtcttttg tatgagcag aacaagagcg tatgcagaga 240
ccggtgggtg attttggaac actaagttgt caatgtgtct ctcaatccag tggcaatgat 300
gagcgtgtgc agagagcaat gggagcaagt aacgtacgaa tgtttcttgc attcaaagga 360
cttttagctta tttgaaagac tgaggctaaa tctatttgc tgaacagtt tgtacattta 420
ttttcagcct gccctaaact cgag 444

```

<210> 1907

<211> 337

<212> DNA

<213> *Xenopus* sp.

<400> 1907

```

gaattcggac tactacaggt gggaaaagca gaagtatctg gaagagaaaa tgacacaaag 60
tgtcttatcc aagattatca aaaccggata tgcagcactc caactggagt acttcttcac 120
cgccggcccc gatgaagtac ggcctggac tatcgagaa gggacaaagg ctctcagga 180
tgcaggcaag atccacacag atttcgagaa gggttttatt atggcggag taatgaaatt 240
tgacgatttc aaagaagaag gcacagaggc atctgtcaag gctgcaggaa aatacagaca 300
acaaggcaaa aattacacag tagaagacga cctcagag 337

```

<210> 1908

<211> 352

<212> DNA

<213> *Xenopus* sp.

<400> 1908

```

gaattcggac tactacaggt gcacatacag gttgggcaga ataacaatgt ctggaacaag 60
gaaagtggac tcattactgc tactggatcat acctggactg gtgtttctct tattacccaa 120
tgcttactgt gcttcgtgtg agcctgtgcg gattcccatg tgcaaatcta tgccatggaa 180
catgaccaag atgcccacac atctccacca cagcactcaa gccaatgcca tcctggcaat 240
tgaacagttt gaaggtttgc tgaccactga atgtagccag gaccttttct tctttctgtg 300
tgccatgtat gccccattt gtaccatcga tttccagcac gaaccactcg ag 352

```

<210> 1909

<211> 261

<212> DNA

<213> *Xenopus* sp.

<400> 1909

```

gaattcggac tactacaggt gcttctgact attatggcta tgacgattac tatgattatt 60
atggctacga ttaccataat taccgtggcg gatatgatga tctttctat ggttacgaag 120

```

acattcaagt cggagctaga ggcaggggtg gtagaggagc aaggggtgct gctccatcca 180
 gaggtcggg ggctgttcct ccccggtgca gagccggtta ttcacagaga ggaggcccag 240
 gatcagcaag aggtgctcga g 261

<210> 1910

<211> 408

<212> DNA

<213> Xenopus sp.

<400> 1910

gaattcggac tactacaggt ggtggttgca gcatggagct tgaagagttc gagcgttaata 60
 attcccagag tcgcctactg agctctccgg taccggagat atgtcggact gaggactgct 120
 gccttgggat agatgaggcc ggacggggac ccgtgttggg tcctatggtt tatggaatct 180
 gctactgtcc tgtggcccga aagaaggacc ttcaagattc aaaggtggca gactccaaga 240
 cactgagtga agctgatagg gaacgactgt ttgagaaatt aaatggttct tcagattaca 300
 tcggtggggc cttgcatata ctgtcaccaa atatcatttc caccagcag cagcagaggg 360
 caaaatacaa cctgaatgct ttatcccatg acaccgcga gactcgag 408

<210> 1911

<211> 444

<212> DNA

<213> Xenopus sp.

<400> 1911

gaattcggac tactacaggt ggagtcagac accatggtga agattgcgtt cagttcgccc 60
 ttgcgggcca aaaaacctag caaggacgtc gaggtcttgg tggcagaaac ggatactgag 120
 gttgcagctc aagggtactga aaattcaact ggaagatgcc tgcctacact gttgggcctt 180
 gctttcatct tagctggact aatagttggt ggtgcttgta tctataaata ctttatgccc 240
 aggcacaagc tctatgaagg agtaatgtct tattccgagc agcatgatct tgttgaggag 300
 ccttattacc ttccgtcttc agaagaagcc gatatccgag aagatgacaa tattgcactt 360
 ataactgttc ctgtacaaa ctttgacgaa agtgatccag cagcgatact tcatgatttt 420
 gataaacttc tgacagacct cgag 444

<210> 1912

<211> 349

<212> DNA

<213> Xenopus sp.

<400> 1912

gaattcggac tactacaggt gcgagatata gctgaaaaatg cggtagctta gtgcagctgg 60
 gctgctgtg ctctctgtat gtcttctatt tcttactcca ggtctgccc acacaggact 120
 tggctgagga tttggggatc atatccattg gagaactctg gatgatggga agaaggaagc 180
 agctgctagc ggcttacctc ttatgctagt gatccacaag acatgggtgcg gagcatgcaa 240
 agcattaaag ccaaaatttg cagagagcaa ggagatttca gaactgtcgc ataactttgt 300
 gatggttaac ttggaggatg agggaggaacc aaaagatgat gccctcgag 349

<210> 1913

<211> 282

<212> DNA

<213> Xenopus sp.

<400> 1913

gaattcggac tactacaggt gtgagaagtc aacatggcag agttgtggct atcactttct 60
 tgcagtgtct ccttgettct actgacaaat tcatctccac ttacettcca ggaaagaatg 120
 ctccctaaag ccttgggggt gaacaccaga ccaaacccca ttgctccagc tctgtacct 180
 aaatctttaa gagacatttt tgagaagggg ataaaccagg acaatccctg catgatggaa 240
 ggttcggag tacctggaaa tattgtccgc attccactcg ag 282

<210> 1914

<211> 450

<212> DNA

<213> *Xenopus* sp.

<400> 1914

```

gaattcccat agcaacaaac agtagaggat gttgcagttt cgacctctca gaaacgcaca 60
agttctgcaa cactgaacca gccagctagc actccacagg gcccaaagtc tcttatggaa 120
gtaaacaaatg acagaatgca tctgatttta ggcatcagca ttcagttctt ctgtgcacca 180
cgacctgagg aacccattga acatgtgact gcgtgtcttc aggttttaca tatactgctg 240
gaggctccat tttccagaag tcatattgca gaagaccagg ttattggagt ggagcttttg 300
aatgtcctcc atcgcttctt cttaacttgg gatacctctt ctgtgcaact gctgggtgact 360
actgtagtgc aacagatagt gagggctgct caacacaata tacaggagca aagaaatgct 420
caaaataaag atgacacaag cgaactcgag                                450

```

<210> 1915

<211> 125

<212> DNA

<213> *Xenopus* sp.

<400> 1915

```

gaattcccat agcaacaaac agtaattccc atagcaacaa acagtagttc ccatagcaac 60
aaacagtaat tcccatagca acaaacagta attcccatag caacaaacag tatggcgggc 120
tcgag                                125

```

<210> 1916

<211> 461

<212> DNA

<213> *Xenopus* sp.

<400> 1916

```

gaattcccat agcaacaaac agtagggagaa agaagtgcac cactaacaag accaactgac 60
agatcggttg gccctattcc aatatcgcca actcaaggat gaagtgcatt gttctcctgc 120
tgggttgctt ctctatcgga tgggttcact ccaacccac aaaaaaagtt aacattgcaa 180
aatgtggaga agcctcacag agctcagatt acagacctga gtacaatgct gctgctgcta 240
tcgatgggtg tagagactca aatatgatgg cgggttcatg ctcccttact ggtaacgaca 300
agccatcttg gtggcagttg aacctaaagc acaggtacaa agtggagaag gtgggtgatg 360
tgaacagagg agactgctgc agtgagcgcc ttttgggagc ccagatccgt gttggattca 420
cagccaatct gaagaacca ctatgtggca cccacctcga g                                461

```

<210> 1917

<211> 446

<212> DNA

<213> *Xenopus* sp.

<400> 1917

```

gaattcccat agcaacaaac agtagggtaa ccaaggcacg gaagtctggg gaatgaaagt 60
ctgaagggaac actgttacca atattaaaac agtcactttc ctccagcct aacaatattt 120
tttatcatta aacaaattgt cagacgaaca ctattacaaa cgtggactaa agaagcagaa 180
acgtgacttt tctttttgaa gccagcctg caatgaagca tcaacatatt ctagttttat 240
ttttgctttc catggctgtg attagttttt tggtagatcg caggattggt aagattccca 300
catttatata tttgaagtca aattgcgagg aggtgacaaa agaagaaaca gaacttcaaa 360
aagaagtga aacaatcttc aatgaagtga acagttcaat tccgaagatc agcttcaact 420
actttgataa cacaacagtc ctcgag                                446

```

<210> 1918

<211> 261

<212> DNA

<213> *Xenopus* sp.

<400> 1918

```

gaattcccat agcaacaaac agtaacttggc ggtctcgagc ctttcaggca gttcccagac 60

```

atcttcagtt cgcgcagcgt gtgaatatcc tgaaccaaga acttagcaga gggccctctg 120
 ggggagttgg ataaccacac atacaggccc tgcttcttct tggcttcaaa atagatgcac 180
 ttattacagt tcttcatttc acagacctca tttaccacaa acagcttgct cttacgggtcc 240
 attttcgttc ctgctctcga g 261

<210> 1919

<211> 383

<212> DNA

<213> *Xenopus* sp.

<400> 1919

gaattcccat agcaacaaac agtagagagg gaccacattt actcccatctt actcctctgg 60
 ctgattcatt tacctgtgac ttaaggaaa gagcaagttc tccataagga aggaacatgg 120
 agcctctccc acttctctca ctgttccctat tggcagttgt ccattttgag cggggcaaat 180
 ctcaagaggg agttcagagc cgcattgttg gaggacacga tgcttcaaa ggaatgttcc 240
 cgtggcaggt cagcctgagg taccaaaata aacacgcgtg tgggtgcgact ctcacagct 300
 caaactatat cctgacagct gcacactgct tccctcaga ccacataatg agtgattact 360
 ccgtaaacct gggggctctc gag 383

<210> 1920

<211> 478

<212> DNA

<213> *Xenopus* sp.

<400> 1920

gaattcccat agcaacaaac agtagccaga caagttgggc tcaggttgta cagacaaaat 60
 ggcagagaaa gggctcttcgg ggatgggtgac cttcattgtg ttgggaata ttgttatatt 120
 gctctctggc cttgcgtgtt ttgcagagac aatctgggca accaccgacc cctacaaggt 180
 ctatcctatt ctgggggtga ctgggaaaga tgacgttttt gcgggcggct ggattgccat 240
 attctgtgga ttctcattct ttatacttgg agtctttggc atcctcgcag tgcagagagg 300
 ggtgcgact atggttctga cgtacttggc gctgatgatg atcgtctata tatttgaatg 360
 cgctcctgt atcacttctt tcacacacag agattacatg atcaactcca atgtgattaa 420
 gggtcagatg ttgacgtact actcagacag cagcaccccc cagggaaggg agctccgag 478

<210> 1921

<211> 360

<212> DNA

<213> *Xenopus* sp.

<400> 1921

gaattcccat agcaacaaac agtaccata gcaacaaaca gtaacaaaca gtatgcaaaa 60
 atgcttgatc tggaaaatct gagcggtaaa attaatttcc ttacttgagc tacactattg 120
 tgctctgccc agtataaaac gatggggacg tgctgccttt gagttcattt ctctacctga 180
 ggaatccact acttcacagt tgttttcaag totctcgatc atgatttaat ttgattggac 240
 acttggttaga ttaaggagat gcaggatctt ccaactgcac aggcattgtt catgatattc 300
 tgctgtgtct gaaactgttg cattcatgat ctccatttta tacgagttct tatgctcgag 360

<210> 1922

<211> 335

<212> DNA

<213> *Xenopus* sp.

<400> 1922

gaattcccat agcaacaaac agtacagtga gcatgtctga tcaggaagcg aaaccatcta 60
 gcgaggatct agggagacaaa aaagatggag gggattatat caaactcaaa gtcattggac 120
 aggacagcag tgaatttcac tccaaggtag agatgacaac gcatctcaaa aagctgaaag 180
 agtcatactg tcagagacag ggcgttccaa tgaattctct caggtttttg ttgaaagggc 240
 aaagaatctc agatcaccag actcctaagg agctcggaaat ggaggaagag gatgttattg 300
 aagtttatca ggaacagact gtgggtccac tcgag 335

<210> 1923
 <211> 221
 <212> DNA
 <213> *Xenopus* sp.

<400> 1923
 gaattcccat agcaacaaac agtacgatca ggagaaagaa gcgattattc ggcgagcggg 60
 tcgagctttt cccgatttcc cttccctgg gatctgtttt agagatatta ctctgtcct 120
 taaagacctt ttggctttct gctctgcat tgatctctc gagagacacc tgagggcaaa 180
 ttttccaaag attgatgtta ttgctgggct tgattctcga g 221

<210> 1924
 <211> 358
 <212> DNA
 <213> *Xenopus* sp.

<400> 1924
 gaattcccat agcaacaaac agtacaacaaa gttcttatgg gaagcaaac aaaaaactgt 60
 atactgtatt ataataaaaa aaaaaagagg ttattttggg acagtatagt gttaaaataa 120
 gcaaaataag atttcagtat taaacttgag atttctagta ttttttattt gacaaatgac 180
 ttttaattttt tcattcctgg ttatatgggt gccctcccc cccttaccac agtggtatat 240
 tatatattat tatttttctt ctactgctgt aaatttatgt tgtgggatgt taacagcaga 300
 gagaggggtc ggcaagtggg gttcttatcc tactaaccac gtgcacagac ccctcgag 358

<210> 1925
 <211> 175
 <212> DNA
 <213> *Xenopus* sp.

<400> 1925
 gaattcccat agcaacaaac agtaagcggc tgcagcttta gtggaggagg agacgagaag 60
 atatcgacct acgaagaact acctgagtta tttgccacc ccagactatt ccgcatttga 120
 gactgaaatc atgaggaacg agtttgaaag actttcggcg cgcagcccc tcgag 175

<210> 1926
 <211> 472
 <212> DNA
 <213> *Xenopus* sp.

<400> 1926
 gaattcccat agcaacaaac agtactcagg gaggacagaa gtgactcaga aatgaagga 60
 cgattctgga gttcgggtgt accagtccat cattatcttc ggcaatgtgg tcacggggct 120
 ctgtggtttt gccctggcgg ccgagtgcac cttctttgtg tcagaccaga gtggcatcta 180
 cccgctgctg gaggtactg acaacgatga catatttggc gccgcagga ttggcatctt 240
 tgccggatc tgtctcttcg tcttgcctat cgtcgggac attggcatca tgaagtcgaa 300
 caggagaatg ctgatgggtg atctcatcct gatgttcatt gtgtatgcct tcgaagtggc 360
 ctctgccatc actgctgcaa ctcaacaaaa ttttttcatt ccagagctct tcctgaaaca 420
 gatgctagaa ctttaccaaa atcccaaccc aatcaacaat gacaacctcg ag 472

<210> 1927
 <211> 530
 <212> DNA
 <213> *Xenopus* sp.

<400> 1927
 gaattcccat agcaacaaac agtataacgg ggacctctgc ttcagttggg ttaaatcatg 60
 aacaaacgct cgctactttt gtgccttggc ctatgggtag cctgcacatt aagcaaaccc 120
 acagagaaga ggatcgtgtt catcatgact ctacgcttag tggtaaagt catgatgatg 180
 cacaaaattt tgactatgac catgatgctt ttctgggtgc cgaggatgca aaaacatttg 240
 atcagctaac acctgaagag agcaaggaga gactgggaat gattgtaggt aagatagact 300

tggataatga tgggtatgtg acggaggggg aactgactgc atggatcaag aaagcccaaa 360
 agaagtatgt gtacgacaac gttgagcggc agtggcagga gtttgacctg agccaggatg 420
 gactcgtatc gtgggatgag tacagaaatg tcacctatgg cacttacctg gatgatcagg 480
 atccagacaa tagcttcaat tacaacaaa tgatgatgaa gaggtctgag 530

<210> 1928

<211> 479

<212> DNA

<213> *Xenopus* sp.

<400> 1928

gaattcccat agcaacaaac agtaggaaga tgcgcgtcgt tacagctctg aggtctgggg 60
 cagcgctaag gtgcctcgtc ctggtggcgc aagtcacagag tcaaggatgc aatgtagaa 120
 cgcactacat gggtaaatgc gataacagcg gtgcattctc agattgtcag tgtacctca 180
 ccataggggc cgattcccaa cctgtgaact gctcaaaatt aattcctaaa tgttggctga 240
 tgaagagaga gagccttggg acaaaggcag gtgcgcagagt taaaccagca caagcactta 300
 ttgacaacga tggactgtac aatccagagt gtgatactaa tggggtgttt agggcccgcc 360
 agtgcacaaa tactgacacc tgcgtgtgtg tcaataccgc cggggtcaga agaaccgaca 420
 aaggggacaa aaactggaag tgcccggagc tggtcagaac taactgggtg attctcgag 479

<210> 1929

<211> 345

<212> DNA

<213> *Xenopus* sp.

<400> 1929

gaattcccat agcaacaaac agtaatcagc atgcagctcc tgtggatcac cgtgtgcta 60
 cttctcatct ctggtgccat agctcagaat acttccctgg cagatggggt tcttactcca 120
 cttagtacat ctgtgataat tgcatttcca ggatgcaaag actccggaaa gactgttaac 180
 ctgatcgtag caaatggcac aactactgta caaaatattt cctccagggt accacagtgc 240
 cgccttaaac gagatgttgt tgtgactaat aattcacagt ctggtaatgt gcagactgtg 300
 aatgtgggct atcaaatata aaactacaa ccaggtgacc tcgag 345

<210> 1930

<211> 324

<212> DNA

<213> *Xenopus* sp.

<400> 1930

gaattcccat agcaacaaac agtagaagaa cagtacgaag tgtgtgcttc tgggaacaga 60
 gacatcatga gtctacagtg gacggctgtc gcaacctttc tgtatgtgga agtgttttta 120
 gtgttgctgc tgtgcattcc ctcatcttcc cccacaagat ggcagaaaat cttcaaatct 180
 cgcctggctc aattgttagt gtcatatggg aacacgttct tctcgtcct gatagtgatt 240
 ctggtgctgt tattactaga tgcacttcgg gaaatccagg aatatggagt cggggagcag 300
 gtggatctta agaataacct cgag 324

<210> 1931

<211> 328

<212> DNA

<213> *Xenopus* sp.

<400> 1931

gaattcccat agcaacaaac agtacaagag cgtgtgtctt tggcttattg tcaccatggt 60
 ggaagctgac cgcacaggca aactgtttat tgggtgtctg aacacggaga ctaatgagaa 120
 ggtctgtgag gccgtgttct gcaaatatgg acgtgtgtgt gaagtctttt taatgaaaga 180
 cagagagaca aacaagtcaa gaggtcttgc cttgtttacg tttgaaagcc ctgcggatgc 240
 caaagatgca gctagagaat tgaatggaaa ggcactggat ggcaaaccta ttaaggttga 300
 gcaagcaaca aaaccatctg aactcgag 328

<210> 1932

<211> 403
 <212> DNA
 <213> *Xenopus* sp.

<400> 1932
 gaattcccat agcaacaaac agtactggga aggggttagt aacatcagcc ggcataatcgc 60
 taogaatatg agacgtata gcttcgtccc ttacttttac ccggcgtagt ttttcatgct 120
 actgataatg tgcgttttca ctccagtaaa aagtgaata attaccttag agagtggcaa 180
 tatagatgac attttaagaa atgctgatgt tgccttagtg aatttctatg ctgactgggtg 240
 ccgattcagt caaatgctgc accctataat tgaagaagca tctaataataa tacaagaaga 300
 atatcctgat aaaaataaag ttgtttttgc aagagtggac tgtgatcaac actctgaaat 360
 agcacaaga tacaggatca gtaaatatcc tacactactc gag 403

<210> 1933
 <211> 280
 <212> DNA
 <213> *Xenopus* sp.

<400> 1933
 gaattcccat agcaacaaca gtaacaacac aagccctaca ggaagagaga tgggtacagt 60
 ttggccctgg atatgcctag ttttacaggt ttcttggact ttcccatgc actttaggaa 120
 gcataatgaa ctacattgc tgagaaacaa agtggaaagc catggagatc ccaataactt 180
 catcaacaa agcagagcag atactccct taaggaaaga gtgggcacct tcccggagat 240
 gactgggtggg agacgtagca acagacagaa cacactcgag 280

<210> 1934
 <211> 338
 <212> DNA
 <213> *Xenopus* sp.

<400> 1934
 gaattcccat agcaacaac agtaagaat aggaggcagc actgacactg gtaaacacat 60
 caaagagcat gattactaca ctctactgg agagtctcgt gtggatagag aaggatcccc 120
 cgttctgctc aattgcctta tgtacgagat gtgctattat cgctttggtc aagtctacac 180
 agaagccaaa cgccctccag gttatgacag agtgagaaat gcagaaatcg gaaataaaga 240
 ttttgagctt gatgttctgg aggaagctta caccacagaa cactggctgg tcagaatata 300
 taaagtaaaa gacctggata atcgcggggt atctcgag 338

<210> 1935
 <211> 118
 <212> DNA
 <213> *Xenopus* sp.

<400> 1935
 gaattcccat agcaacaac agtagcttgg cggctctcag gtggtgtgtg tgtttaggga 60
 ttttttgttt tttgtttttg ccagaatcgg gagatttttt tgttttgttt ttctcgag 118

<210> 1936
 <211> 541
 <212> DNA
 <213> *Xenopus* sp.

<400> 1936
 gaattcccat agcaacaac agtacatgac tggagtcttc ctgctcctct gcgcctccat 60
 gctggcgcgc gcgcgcgcct ttgacatcgg attatccacc aagtgcgttc ccattcccaa 120
 agagatggcc atgtgcaatg acgtcggcta ctccggagatg cggttgcca accctgttggg 180
 acacactaac atggcagaag tcgtgcccac gtcagcagag tggcagaacc tcctacagac 240
 cggctgccac ccctatgcca ggacctccct atgctcccta ttgcctccag tetgcctgga 300
 cactgttcac cagccctgcc gcagcatg-g tgttgctgta agaaacagtt gtgctccagt 360
 tctggcatgt catgggcact cctggcccaa gagcttagac tgtgacaggt tcccagctgg 420

ggaagacatg tgtctggaca ctctcagcaa agagtatcag tatgcctata aagaactgcc 480
 aaagccaagc tgccagggct gccacttat tgaagaattc ttttcacaca agacactcga 540
 g 541

<210> 1937
 <211> 411
 <212> DNA
 <213> *Xenopus* sp.

<400> 1937
 gaattcccat agcaacaaac agtaattccc atagcaacaa acagtaggct ctgtagggtc 60
 tccgctatca tggctacgtc agcactgggc aagatggcgg tgcccatgca gcaggagcag 120
 ctccgtgtgg caaccgggct tegtccctt ctctttctgt ggctgctgag tttagtggga 180
 gcaaatgaag ggcaggcggc acaggacacc ccacaccggc ggctcgagta taaatacagc 240
 ttcaaaggtc cttacctagt gcagagcgat ggcactgttc cttctctggag ccactctggc 300
 aatgcaattc ctagcgctga tcagattagg ataacgccat ctttaaaaag ccagaagga 360
 tcggtatgga cgaaaacttt ggcaaaacttt cagaactggg aagtcctcga g 411

<210> 1938
 <211> 353
 <212> DNA
 <213> *Xenopus* sp.

<400> 1938
 gaattcccat agcaacaaac agtatgcacg tgcaagaggc cttatccgga tccagaagat 60
 gaggtccaag atgaaatgat ccagtgtatg gtctgtgagg actgggtcca tgggaaggcac 120
 cttggcgagc ttccaccgga gcatatggac ttccaggaga tgatatgcca gatctgcag 180
 gaccgatgtt catttctttg ggcctatgct gcatatatag caattcctcc tgttacaaaa 240
 ataacatctg ctgagatgga tcctgaaagc aaggatatca aggttgatga tagtctgggt 300
 gagggatttc taggagaaga tgggccaac attaaaactg ggaaaacctc gag 353

<210> 1939
 <211> 295
 <212> DNA
 <213> *Xenopus* sp.

<400> 1939
 gaattcccat agcaacaaac agtaagggca cacacctatt atgcaccact ccattcttca 60
 tcatcagcgg cctttcaatt ctctgtaaga tgacctaca catggatttg acactctgag 120
 tctggagagt tctgatagtt tagacactag tgtttctaca ggaactcgg catgttctcc 180
 tgataacatg tcaagtgcta gtggtttaga catgctgaag atagaagaga tggagagaat 240
 gcttctagaa gctcatgcag agagatccag gctttagga tccagtgagc tcgag 295

<210> 1940
 <211> 361
 <212> DNA
 <213> *Xenopus* sp.

<400> 1940
 gaattcccat agcaacaaac agtactccga atacactgcc atctttttat ccaccatact 60
 cacctgccca tccaagcttg cccaatgaca ttactatccc ctatttcccc aatcagatgt 120
 ttccaaaccc cagcacagaa aaacccaaca gcaactggtc aaacaacagg tttgggacca 180
 cattatcccc accacggcct gtgggatttt ctcaaaccac ctccctctc ctcccagaca 240
 tgccgccaat gcacatagcc aacccctccc atctgtccaa cttcaactta acgtccctct 300
 tccttgaaat tgccacgact ctcccaactg atggctctgc catgtcacc ctactctcga 360
 g 361

<210> 1941
 <211> 287
 <212> DNA

<213> *Xenopus* sp.

<400> 1941

gaattcccat agcaacaaac agtagtccac agtaggtcgg gtgctgtctg ggtgcaagca 60
cctttgggca gggcaagggg tgcagtgggt aaggcgacca gcgggcagga ctctgtgtgg 120
atacagcagt ttaattttca gtggcctggg aagagacca tcagaaaggc agttgcttca 180
gcagtgcaca tcttttcaact catcttcagt acgtaatgga cttgatgaat tctttgatga 240
tcccaagaac tggggagaaa aatctgtaaa atctggtaaa gctcgag 287

<210> 1942

<211> 349

<212> DNA

<213> *Xenopus* sp.

<400> 1942

gaattcccat agcaacaaac agtaaacaga catggcgaag catcatccag atctgatttt 60
ttgcagaaaa caggccgggtg tggccactgg aagactctgt gaaaaatgtg atggcaagtg 120
tgtaatttgt gactcctatg tgcgtccatg cacccttgtg cgtatatgtg atgaatgcaa 180
ctacggttct taccaagggc gctgtgtgat ttgcggaggg ccagggggtt cagatgetta 240
ttactgcaaa gaatgcacca ttccaggagaa agatagagat ggttgccta aaattgtaaa 300
tttaggcagc tccaaaacag atctctttaa cgaacggaag atgctcgag 349

<210> 1943

<211> 469

<212> DNA

<213> *Xenopus* sp.

<400> 1943

gaattcccat agcaacaaac agtagaggga ttccctcattc ctcatccagt aattcgaatt 60
tgctggggtt ctgctgcctt ccgaaagcat gttgcgcctc gtccctcgctg ccctggtagt 120
tgcagtaact tcagctgact tcactgtatt gaagtcacca caaaatcaaa tattccaaga 180
gggaaatttg cctgttccgg ctgacaggat tccagatc atctcgttgt caatgggatt 240
ttccgtggaa gaggatctgc cctggcctgg cttaggagtg ggcaaccttt tccagcgctc 300
tcgtgctaca gtccctcgtga cagttaactg agtgaataag ctcccgttg ctgccaatgg 360
actctctat cctgtggaaa atgctgttcc atacagtgtt gacagtgtt taaattctgt 420
tcattctgtg ttttctgaag aaatgccagt aattttgcag cagctcgag 469

<210> 1944

<211> 489

<212> DNA

<213> *Xenopus* sp.

<400> 1944

gaattcggac tactacaggt ggacaaaatg ggcaccagcg gctgcatgaa agtcaccaag 60
tacttctgt tctgttcaa cctcctgttc tttattcttg gtgcctgat ccttggattt 120
ggaatatgga tctcctgtga caaaaccagc tttatttcaa tctgcagac ctctcttgg 180
tacctgagaa caggctccta cattctcctc gctgttgggg gtttaacaat ggtgatggga 240
ttcctgggct gcttgggagc agtgaatgag atccgctgcc tgttgggctt gtatttcacc 300
ttcgtgctca ctatcctgat cgtcaagtt gcagccggaa ttctgattta cctacagcga 360
gatgcactaa agtccgagat gtccctccatc atccataaac tgattgtcac atatgactat 420
gaagatggaa agaacacgag ctccgagacc acctgggatt atatccagag aaatctccat 480
gtgctcgag 489

<210> 1945

<211> 281

<212> DNA

<213> *Xenopus* sp.

<400> 1945

gaattcggac tactacaggt gcagggttag aagaggggtca tttacattta catattacag 60

ttcgttatct tatgaacaaa gtggattctg gttcctgaag actgaacttt cctatgagtg 120
 caacatttgt acttatattc cttctgatec ttccctgggt caggatccct gcagcgcttc 180
 tgtttacactc ctccctcccta tctctgtgat ccttgatgga gaaaccagtt acaaggaggg 240
 acgtttcattc tctgaattct ctttcattcc tgaacctcga g 281

<210> 1946

<211> 437

<212> DNA

<213> *Xenopus* sp.

<400> 1946

gaattcggac tactacaggt gacaatttct aggggtgagg gggcctcaat ttgtgtgcat 60
 gatttttcgat ttataaacca ttctattgtg taaaaccttc aaaatggcag aacgggcaat 120
 ctttccctgtt ccggtttgca ttccgatgaa tgcaacaatt taactggtgg ccattgggttt 180
 ctaccacaggt gcaaatattgc ccagtattga taaatgacct ccagtgtgtg tatgtttgta 240
 cattttacaa atgtatgact ttttggcatt tgaaatcgat agagagattt tgcaatcttt 300
 aaggacaccc taatccccc cactcctctt ttttattaca ttatgtttgt ggaattagga 360
 ttttaaaaga taaaccttat gaccacccat cccatcttca cccaaagcca ttaggcaaat 420
 cacatccatc cctcgag 437

<210> 1947

<211> 270

<212> DNA

<213> *Xenopus* sp.

<400> 1947

gaattcggac tactacaggt gatgtagata agaaataggt gggacacatt ccaagatacc 60
 atcttgagag ggtcttttac atttcaaaga ggaactgttt gtacagtgtg tgttggttaa 120
 agggacatct aaagaaatta gctgggtttc ctgtttaact tggcatcagc caatcagagc 180
 cattctccat ttgggtcaat ggcctagaaa caatataaca atggagtgtg tttttggttg 240
 agagagagat tgggaaggag gagactcgag 270

<210> 1948

<211> 333

<212> DNA

<213> *Xenopus* sp.

<400> 1948

gaattcggac tactacaggt gtttttagtgc cttgagggct gccctacaga gcattgattg 60
 gggcattagg ttttcagcra aaaacacaga acagaaatgg ttgtccttta aaatgatatt 120
 aaatcattac tgttctcaat ttattccctt aaggactaaa cgtagaagct ctaagaatca 180
 tctgtgtgtg ctttaatacag aggtaaagat gttaatggga aagaagagaa aggcatttaa 240
 aaactacaaa tctgtagggg cagaagctgc atttaatgaa tataaacact gtaataaatg 300
 ttgtaaatca gcaatccgga aggccagctc gag 333

<210> 1949

<211> 284

<212> DNA

<213> *Xenopus* sp.

<400> 1949

gaattcggac tactacaggt gagtgacttt agacatttaa tgtgagtata gtgagtaagt 60
 gtaagtctta aagctcattt atagctgaga gaggagtgtg agtgcagggg gtgtatgact 120
 gtgcgtagtg aggggacatc acattcatta ccctgagtat ctggagaggg taactgactc 180
 ggcagcatca caaggatgtg gtccatctac gtccctcagct ggctgtccct gtttgttcag 240
 gtggcctttg tcactctggc cattgctgce ggaccattct cgag 284

<210> 1950

<211> 536

<212> DNA

<213> *Xenopus* sp.

<400> 1950

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gaattcggga ctactacagg tgcgctcctt ccttcctgct gcctcctgtg tgggtgaggt 60
tcgctgtccg gggcctgcgc tacattgtgt aacctccgc cctgttgccg ccgcagcgaa 120
gtcctcccgc ctcaggcaag tgaaagccgc gtcccaggtt gtcccgcagt gattatgcat 180
aaggagcacc tggcccagga tgagaatagt aatccccgcg agggccccgg agccggaaga 240
aggacaaact gagtcccagc gagcaggaca tgaaccacat taacaagagc aaagcgaaga 300
ggcgctcatg ggaggctaata ggctttgggc cggaccacaga gatcgagaca ttagccggcc 360
gtacagaaga cagtgtccct ctcagccctt ccaactccct caacctgcgt cacctgagag 420
gctgcgagag agaccocatcc gggcgccccc accaacgcta tccttcacgc catcaccact 480
cctacageta ctcctcccat catcactacc gaccttgtg ctccagctac ctcgag 536
```

<210> 1951

<211> 426

<212> DNA

<213> *Xenopus* sp.

<400> 1951

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gaattggact actacagggt agcctggaga ccgcgatcag acatgtgttt tctacacctg 60
ctctcactat tatgtgtgtg gctgggtggct ccactctccg ccactgggga taatcgatac 120
aaacaagggg agccagtgat gatgtatgta aataaagtgg gcccatatca caatccacaa 180
gagacttata actactacca acttccagta tgtgtctccg agaagatccg cctcaagagc 240
ttaaactctg gagaagtgtt ggatggagat cgcattggcg agtccttgta ccgaattgca 300
ttccgacaaa atgcccgaag agaaactcct tgtgagatga aattatcaat cagccaagta 360
gaggagctgc gcacagctat cgaagaattg tattattttg agtttatgct agacgacctt 420
ctcgag 426
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<210> 1952

<211> 324

<212> DNA

<213> *Xenopus* sp.

<400> 1952

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gaattcggac tactacaggt ggcaataaat aagcatcgtc ttcttcttct ttttcgtcat 60
tgcccttttt gctagcaggg caccgttagc gtcctttgct tactgtgtgt aattgtgcca 120
aggaacaaaag taattttcgt gcaataccca ccggaggctc cgtcccaat atctcatcaa 180
gacagagatc gtcattgaagg ttgcctccta gtgctggaat ggtgttgccct cctggcagtg 240
ggtggccaac gatgacaact gtgggatatg tcgtatggca tttaatgggt gctgtccaga 300
atgtaaaatc ccaggaaact cgag 324
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<210> 1953

<211> 360

<212> DNA

<213> *Xenopus* sp.

<400> 1953

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gaattcggac tactacaggt gcagaaagtc aactctacta ccactggcat gtctgcaacc 60
actagttata catatggagt cagctctact accagcagtc cagtgaattt gcctgtttac 120
attactaaga aggaacccga ccggcctgtt gaatatagt agatctgtct ccatcacatc 180
tggaagtact gcaggcttgg gaacaaatgc agtgagatgc attatcattt gccctaccgc 240
tggcaggaga aactggacaa caagtggcaa gacgctacca gcatggatgc aatggagagg 300
gcattctgcc aaccgaagaa cgacagctac ttggggatca gttttgcaac agacctcgag 360
```

<210> 1954

<211> 356

<212> DNA

<213> *Xenopus* sp.

<400> 1954

gaattcggac tactacaggt ggaggaccaa gaagtgtgga agtgttctag agctgcttta 60
 tctagccaat cagaatgaac ggccagatgc tgaatggttt ccacgatgag ctcacgacg 120
 aaggcagctt tctctttacc tcagagtcag tcgggggagg gcacctgat aaaaactgtg 180
 accagatcag tgatgcagtc cttgatgctc acttgaaaca agaccagaa gccaaagtcg 240
 cgtgtgaac tgtggccaag actggaatga ttcttcttgc tggtagatc acctccagg 300
 catctgtgga ttacaaaaa attgtacgag acacaatcaa atacattgac ctcgag 356

<210> 1955

<211> 384

<212> DNA

<213> *Xenopus* sp.

<400> 1955

gaattcggac tactacaggt ggaggagggt tcttcatca gaatggatat tgtactgctc 60
 ctctttctct catccctcct ccctgggacg tgcacttacg cggcccccg taaggacccc 120
 actctacgct ttgtggctct cggagactgg ggggggctgc cgctccccct ctatactaca 180
 agacagcagg agctgggtggc tgaagagatg ggcaaaacag tggccaaact gggcgagac 240
 tttattctgt ctttgggtga caatttctac tacgacggcg tcaccgatgt gtcagacccc 300
 agatttaaga tcaactttcga gtcgggtgac agctccgagt ccctcatcaa acacccttgg 360
 tatatactgg cggggactct cgag 384

<210> 1956

<211> 333

<212> DNA

<213> *Xenopus* sp.

<400> 1956

gaattcggac tactacaggt gcaaaagctcc caaagttaaa aaagctggag ctcagtgaac 60
 atcgcatctc tggaggatta gaggtactgg cagaaaggac cccaaatttg acacacctga 120
 acctcagtgg gaacaagata aaagagatca acaccctaga gcctcttaag aagctacctc 180
 atctcatgag cctggacctc tttaactgtg aggtgactat gctaaacaac tatagggaga 240
 gtgtgtttga gcttctcccc cagctcaact ttctagatgg ctttgatgca gatgaccagg 300
 aggtccaga ttctgaccca gaggcacctc gag 333

<210> 1957

<211> 297

<212> DNA

<213> *Xenopus* sp.

<400> 1957

gaattcggac tactacaggt gcgaaaacct ataattccag agcgtaaata ccagttacta 60
 tctaagattg aggatgggga aagtaacatt cctctgcctt ctttgcccc ctcctcttcc 120
 actgagaaag tacctgtggt gaaagctaaa gccacttcta tcatcatgaa ctctcttatg 180
 acaaagcata cacaggagag cattcaacgc ttcgaactgc aggetggcct cagggatgct 240
 gggatatatgc cacacaaggc cctcactgct gaagagacca aataccatcc cctcgag 297

<210> 1958

<211> 256

<212> DNA

<213> *Xenopus* sp.

<400> 1958

gaattcggac tactacaggt gattcattgc aaaattgccc tctctggat cctgggaaca 60
 tgaatatataa ctaaagctat aataaatgca cattgtatca gtgctacaca atttgttggg 120
 cctcttaaaa gtacatttta ataataataa ttgtacactt gagaacaagc aaattttacac 180
 acacagttca aactttttta gtgttcagaa ttgtttcctg tgggtgatct gattattata 240
 atatagagag ctcgag 256

<210> 1959

<211> 329

<212> DNA

<213> *Xenopus* sp.

<400> 1959

```

gaattcggac tactacaggt gttttaacag aaaagaaaga aggcgacgaa ggaggtggta 60
ggattgaatg gtcccatatc aaagatggta gttctccag ttggccact atgatatgca 120
gctttgcaca agaaaatgag gaagcagaag atggagggga tgattctcag agtgatgaag 180
agcaagaact aaatgggtca aatgaggaca gtggacatct ggtccacaat ttgtaatgg 240
ataaacagga tactgaaatg aaagaaaagc atggaaatga aacacagggg atgctggaac 300
tgggcaagga agaaagacag accctcgag                                329

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<210> 1960

<211> 396

<212> DNA

<213> *Xenopus* sp.

<400> 1960

```

gaattcggac tactacaggt gcttgattcc aaaatgacca agaagcgaag gaataacgga 60
cgtgccaaaga agggccgcgg ccatgtccag cccatccgtt gcacaaactg tgctcgctgc 120
gtcccaaagg acaaggccat caagaaattt gtcacagga acattgtgga agctgcagct 180
gtcagggata tctctgaagc cagtgtcttt gattcatatg cacttcccaa gctctatgtg 240
aaacttcatt actgcgtcag ctgtgcaatc cacagcaagg tggtcagaaa ccgctccgcg 300
gaagctcgta aggaccggac accacctccc aggttcaggc ctgcgsggtgt acctcagaga 360
gcacctccca agccaatgta agagacgtgg ctcgag                                396

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<210> 1961

<211> 528

<212> DNA

<213> *Xenopus* sp.

<400> 1961

```

gaattcggac tactacaggt gcaggaaggc tggtaaattg atttctctaa gtgagcaaaa 60
tcttgttgac tgctccagag ctcaaggaaa ccagggatgc aatgggtggc ttatggatca 120
agccttccag tatgtcaagg ataatggagg catcgattct gaagactcgt acccatacac 180
tgctaaggat gaccaggaat gtcactatga tccaaactac aattcagcaa acgacactgg 240
ttttgttgac gttccatctg gaagcgaaga agatctcatg aaggcagtag cttcagtggtg 300
accagtttct gttgcagttg atgcaggaca tcaatccttc cagttttatc agtctggaat 360
ttattatgat cctgaatgca gcagtgaaga cotggatcat ggtgtacttg ttgtgggtta 420
cggctttgaa ggtgaagatg tggatgggaa gagatactgg atcgtaaga acagctggag 480
tgagaaatgg ggcaacaatg gatacattaa gattgccaaag gactcgag                                528

```

<210> 1962

<211> 269

<212> DNA

<213> *Xenopus* sp.

<400> 1962

```

gaattcggac tactacaggt gataaatggg gttacagatg gtatttgcac tgcaaccacc 60
ccatttgtgc tcctgggaga tgtgcttgac tgtctgctc tggcatattg tgacaagatc 120
ttcacgtttg tggaaaaaaa tgttgggtacc tggaaatcta atacctttta ctcaggggaa 180
aaattacctc cttcggatgt gtaatgacct cttaagaaga ctatcaaaat ctcagaacac 240
ggttttctgc ggaaggattc tgtctcgag                                269

```

<210> 1963

<211> 267

<212> DNA

<213> *Xenopus* sp.

<400> 1963

```

gaattcggac tactacaggt gtggaaattg ggtgacttga gcattgagct gaatagtggc 60
ttcttttactg ggatctatgg catgtggaat ctttatgtct ttgctctcat gttcctttat 120

```

gctcccttcac acaagcacta tggagatggc cagtctaattg atgggtgctgg aatgagcagt 180
 ggagaggaaac ttcagctgac aaccacaatc acccatatcg atggacctac tgagttgtat 240
 cggctggctg gcagggaggc actcgag 267

<210> 1964

<211> 309

<212> DNA

<213> Xenopus sp.

<400> 1964

gaattcggac tactacaggt ggaccggaga ggggagacgg agatatgaat aaccaaggcg 60
 gggacgagat cggaaagctc tttgtgggtg gccttgactg gagcacgaca caggaaaccc 120
 tgcgcagtta cttttctcag tatggagaag ttgtagactg cgtaataatg aaagataaaa 180
 caacaaatca gtcaagaggc tttggctttg tcaaatttaa tgatcccaat tgtgtaggaa 240
 ctgtcctagc cagcagaccg catacactgg atggccggaa tattgatcca aagccatgta 300
 cccctcgag 309

<210> 1965

<211> 323

<212> DNA

<213> Xenopus sp.

<400> 1965

gaattcggac tactacaggt gctttggagg tcaaggaagg acatctgtgg tgctgcttt 60
 attctgcatt taattaaagc tttctagctg aatgtgctta atgaactcgg tgccacttgt 120
 acagacacct aagcagtggc tctaattgctc tatttttaaac cttaaggcaa cttacacata 180
 gttaattgctt taaagcagga gtccccaac gccaggccgc ggacactcct gccctgggtc 240
 gccgagccca gtgtcctaaa acgaggcagc ccaaatttta tgccagcgcg tccaaatttg 300
 ctgccaaacc ctccgacctc gag 323

<210> 1966

<211> 535

<212> DNA

<213> Xenopus sp.

<400> 1966

gaattcggac tactacaggt gaagcttggc agctatggct ttgtttagcc atttccatgt 60
 tggatgtccc atgcccagagg tgtgcttctt tgtctctgtg atgcttctgg ctatagtggg 120
 tgagttcagc ctttccctgg ctgcgcaggt gagtacctgt gaggcaaatg gcagtgtcta 180
 ctatgttggg gagtgggtact tcttggactc ggaccactgc actcaatgtg agtgcaccac 240
 agagggccca gccgtgtgcta ggacagagtg cacagccttg ccaccagcct gcattgcgct 300
 cagccactac cctacggact gttgccctcg ctgtgagaag attggctgtg aatacagagg 360
 agaagtttat gagctgggag aacaatttca gccctcagaa tgtgaacagt gtacatgtga 420
 cgtagacgga attgcccgct gcctggtagc agactgtgcc cctcctccat gcgttaaccc 480
 ggtgtatgag aagggagagt gctgcccgcg atgtaaagat ggtccaaacc tcgag 535

<210> 1967

<211> 281

<212> DNA

<213> Xenopus sp.

<400> 1967

gaattcggac tactacaggt ggctaatagc ccaggaccac cttccctata ctaggaaaaa 60
 gaaactcacc aaacgtacta atataacttg ttttaattgc tatcaaaaag gacatttagc 120
 gcgccactgt ccagaaaatg aggacaagaa agaacaaaat tctcctagtt cttataaagt 180
 tgttctcgac cggcctcatg cacataaccc aaaccgggg aaatcttacc gtagtacgga 240
 gggccccccg ggaacctacc attcataacc aaaccctcga g 281

<210> 1968

<211> 308

<212> DNA

<213> *Xenopus* sp.

<400> 1968

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gaattcggac tactacaggt gaaggagtag gagggaaagt gaaaggaaat taacacgcag 60
tgattcctcg ttatcaaaga tgtcacggca ggattctagg caagatggca agaaaggctc 120
caccaaagaa agtaataaac gctctacarc tagtgggaagg agcagttcag aatcgctgt 180
cctctacaag gataaaaagg ctaagaaatc aaaacgcagc agatcacatt ctgtggagaa 240
atcgcaaaagg tctggttaaga aggcaagccg caaacacaag tctaagaccc gatcaagatc 300
gtctcgcag                                     308

```

<210> 1969

<211> 349

<212> DNA

<213> *Xenopus* sp.

<400> 1969

```

gaattcggac tactacaggt gcatgaagtt actgtttgct gctgcgctta tcgcgggctc 60
cgtgatcttc ttgctcttcc ctgggagctc agtggcagat gacaagaaga aaggggccgaa 120
ggtagccgat aagggtatact ttgattttaa gatcgggtgat gaggaagtag gaggtatagt 180
aatcggtctt ttggaaaaaa ctgttcccaa gacagttgaa aactttgtaa ccttggcaac 240
cggagagaaaa ggatatggtt acaaaggcag caagtccac cgtgtgatca aagaatttat 300
gatccaagga ggagattttc ctctgtgaga tggtagtgaa ggactcgag       349

```

<210> 1970

<211> 319

<212> DNA

<213> *Xenopus* sp.

<400> 1970

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gaattcggac tactacaggt gaaatacatt tgtgccattt tgtttgcttt gtaaattgta 60
atcttatatt gtatttcctt cctgggattg tgtgtcaggg ttgcttttct gatccagtgt 120
aattaacatt caactgtaaa ttttcaatcc attgatgtc cgcctgcagg ctctctttt 180
tacatgtccc tgcgggatgt ttttagagtg gcggcattca ctggtttgga ttcccccatg 240
agaacacgta caatatctta ggtgtaacct ttaactctt tgttttggtt tctggggagg 300
gaatggggga actctcgag       319

```

<210> 1971

<211> 302

<212> DNA

<213> *Xenopus* sp.

<400> 1971

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gaattcggac tactacaggt gtggggctct tccgtggagt tatggctgtc aaagtgttca 60
gttcatggga ttttaaagtt actcagaatc gatctgtaca gagacagcga gaaaatatac 120
acatgcagct aaaggaaatg ctccagtgaag gactacaaag tgaccgtcca actctcttaa 180
agaagcaact gaaggytctt ttcattctca tgctctctg ggcattgtgt ttagggagct 240
ggcttggggc tgcagtagtt gtatatctgc tgtcagaaca tctacaccaa gttgggctcg 300
ag                                     302

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<210> 1972

<211> 438

<212> DNA

<213> *Xenopus* sp.

<400> 1972

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gaattcggac tactacaggt gaacccctga aaaactcttt gaaagtctca tctctccggt 60
tacaagcgat gcatttttcc gtgactactg ggaaaccaa gtcctgcttc tccaggggag 120
ggatcccgcg ttaccgatt acttcagac ctttttccga ctgtcagacc taaagcacat 180
cgccgggggt gggatttact acgaaaggga cgtcaatgta ttcaaagca gagacggcaa 240

```


gaaaatagcg ttgccaagac acgggaaagc cacttacctg catctctca aagactttgg 300
 cagcgggaag gccgctattc agttccatca gccccagagg tttaatgatg ccttggtgca 360
 catcatggag aagttggagt gcttctttgg tgccttggtt ggaagtaacg tttacatcac 420
 tccccgggac tctcagag 438

<210> 1973

<211> 255

<212> DNA

<213> *Xenopus* sp.

<400> 1973

gaattcggac tactacaggt gataatctgt gtgtgcaaca ggcgtgttat agtatctgtt 60
 gctgtaccgg taattacggg tatcattcga agagccacta gatcctcctg agctagacac 120
 cgaactgggt gtacttggtg agtgactatg gtccattgca gggcttgtag aattactatt 180
 acttgatttt gtcccttcac cagttgtttt cttgaagaag ttgtgctgga gggcatagaa 240
 aggggtggac tcgag 255

<210> 1974

<211> 410

<212> DNA

<213> *Xenopus* sp.

<400> 1974

gaattcggac tactacaggt ggggctttct tcaagggtgc ctggtccaat gttctccgaa 60
 gaatgggtgg cgcctttggt ctgggtgtgt atgatgagct gaaggaaagtc atgtaaactt 120
 atctttcttg agatgtctgt gaccaggcgt gctgtattct gtaacctacc ctggacattt 180
 atggacattc taattttttt tttttgtca aacacactta tttataaaat atatagctgg 240
 taaacttatt agctgggtgt ttgggatcag ttctattaca tctcaccagc tttocacaat 300
 aataaatcat tccctttaag tctcttgctg cttttaagag cctgcaactg tgcttccttg 360
 caaggttttg gccctttggc agtgacagac tgattcaatg gagactcgag 410

<210> 1975

<211> 320

<212> DNA

<213> *Xenopus* sp.

<400> 1975

gaattcggac tactacaggt gaatacatct gtgccatcag agcctagcag tcttcagagc 60
 agtacacgta caagtcgttc agcttctcct gacgatatac ttgaacgagt tgctgcagat 120
 gttaaagaat atgagagaga gaatatcgac acatttgaag cctctgtgaa agccaaatat 180
 aatctcatga ctgaacagaa taatgggtgc atgcagaaga aattattagc accagacatg 240
 ttcacagaat ctgatgacat gtttcagaca tactttgata gtgctcgttt taaggctgct 300
 ggaattggaa aagactcgag 320

<210> 1976

<211> 455

<212> DNA

<213> *Xenopus* sp.

<400> 1976

gaattcggac tactacaggt gagatgagct aatggatttt ggctatcctc aaaccacaga 60
 cagcaaaatt ttacaagagt atatcactca agaagggtcat aaattagaaa ctggagcacc 120
 ccgtccacdt gccacagtaa caaatgctgt atcgtggaga tcagaaggca ttaaataatag 180
 gaagaatgaa gttttcctgg atgtcataga atctgtgaat cttttgtgga gtgcaaatgg 240
 aaacgtgtta cgcagtgaga tagtagggtc catcaaaatg cgagtgtttc tttcaggaat 300
 gcccgaaactt cgtcttggtat taaatgataa agttctattt gacaatactg ggcgtggaaa 360
 gagcaaatct gtggaactgg aagatgtcaa gtttcaccaa tgtgtacgcc tgtcaagatt 420
 cgaaaatgac aggacaattt ctttcattcc tcgag 455

<210> 1977

<211> 299
 <212> DNA
 <213> *Xenopus* sp.

<400> 1977
 gaattcggac tactacaggt gaaaagtaca taagcaagtc gcttattgga ttgctttttc 60
 cagttatgtt aagtattact gatgtgtaca ttgttcttaa tgcattgtta aacatgcttc 120
 ccttttctaa aatatatggg ctttatttgg actctactgt tctacttttt aagatgtttg 180
 tgtgtttttt tgtttttttt ctttgagtaa acataaagcc tgatttttgt attacttttt 240
 agttgttgc cagttgtact ttatcaaata aatctgttaa aacacagcgc tcactcgag 299

<210> 1978
 <211> 435
 <212> DNA
 <213> *Xenopus* sp.

<400> 1978
 gaattcggac tactacaggt ggaagctcag aaatagtaca cggatcccg gagcggctct 60
 gcagagaaca tggcggatgt actggattta cagcaggcgg gcggggagga cttcgctatg 120
 gatgaagatg gggacgagag tatccacaaa ctgaaagaaa aggccaaaga aaggaagggc 180
 agaggggttg gtgcagatga aggcaccaga acgaggatcc gggaagacta tgacagtgtg 240
 gagcaggatg gagacgagcc ggggccccag agatctgtgg aaggctggat cctgtttgtg 300
 accgggggtac acgaggaggg cacagaggag gatatacacg ataaatttgg tgaatttggg 360
 gagatcaaga acatccacct gaatctggac cgcaggacgg gcttcctaaa gggctacggc 420
 ctagtggacc tcgag 435

<210> 1979
 <211> 478
 <212> DNA
 <213> *Xenopus* sp.

<400> 1979
 gaattcggac tactacaggt gcgccgagag gccgtttata aaatgcagct ttttgtctga 60
 gggcagagtc tgcacaccct agaggtgtct ggacaggaga ctgtttccca gatcaaggat 120
 caaatctcct ctctggaggg aatctcttct gaggatcagg ttgttctcct tgctggctcc 180
 ccactttctg aggaacatac cctgcaacaa tgcggcgtat gtgatctcag cactttggat 240
 gtagttgcac ggctgttggg aggtaaagtc cagggctctc tcgctcgtgc cggaaaagtg 300
 cgaggccaaa ctccaaaggt ggccaagcaa gagaagaaga aaaagaagac tggccggggc 360
 aagagacgca tgcagtataa cagacgcttc gtcaatgtcg taccacctc tggcaagaag 420
 aagggacctt atgccaactc ttaaatgatc agagttcaat aaacaactga aactcgag 478

<210> 1980
 <211> 346
 <212> DNA
 <213> *Xenopus* sp.

<400> 1980
 gaattcggac tactacaggt gaacagaggg gccatctgtt ctgcagataa ggacagtgtg 60
 tatgagatgg aatcacactg aaatataatc ccagaaatag cagtgcccg ttgcatcatc 120
 actctctgta catgggggta tgacttcaca gagatctttg cccattaac cagatttaac 180
 ccaacacttt gcgccaaatc ctacgcgagg gagaaaacca atctccttgc ttattactta 240
 cctttgcctc cttatttaga tgagccgctg agaattgtaa ataacattta tacataatat 300
 tgatatatac tatggcccat ggtgttacat tgaccaacc ctcgag 346

<210> 1981
 <211> 310
 <212> DNA
 <213> *Xenopus* sp.

<400> 1981

gaattcggac tactacaggt gtgataacgg cgcagctctc cactcaattt cagatactgc 60
 taatggaatc tgtcttctcc aattgtatta tgagaagccc taatttgcctt tggagcttgg 120
 agctgtcatc agttggggat tgtgggggtca catggggagct gccagggtttt tgccctgcag 180
 ttgttatctt tcactttcaa tagcacagcc ccttgctgc cagttagctg ataggccgcc 240
 atgggggttta tgccacttca tacaatagga ccgggctgca caggctgact ttctaattgt 300
 caagctcgag. 310

<210> 1982

<211> 341

<212> DNA

<213> Xenopus sp.

<400> 1982

gaattcggac tactacaggt gcaaagagaa cgcgagcggc agaggcagag agagcgagag 60
 atcagagaaa tggagagaca aagggaaaca gaccgcagag cccgtgaacg tttcttatg 120
 atacgagaaa gagaagaacg ggagagactg cgaagggagc gcgccaggct tgagtttgaa 180
 agagaccgtc ttgatcgaga acgtatggag cgcgagagac tagaaagaga gcaatgcgt 240
 atagaagaag agcggcgaat agagcaggag cgcattcaca gggaaaggga ggagcttcgt 300
 cgtcagcaag accgattacg ctatgaacag gatgcctcga g 341

<210> 1983

<211> 301

<212> DNA

<213> Xenopus sp.

<400> 1983

gaattcggac tactacaggt ggcgctccc gcggagttag gcaatagggt ttgctggaga 60
 gagcgattga gagtttagatt tgctgcgggc gcttttagga ttcatattgtg tcccagtggt 120
 aactaacatg agactccccg ggaataagtg gctgggggca gcgctccttc togtgctaac 180
 ggtctcgtgt agagtgcgga gcgacgaacc cactggaccc ccatcaactt caacagaaaa 240
 aacaataaca agtgctcccc tgcaaccgac cgcaggcagc aatataacag acatcctcga 300
 g 301

<210> 1984

<211> 304

<212> DNA

<213> Xenopus sp.

<400> 1984

gaattcggac tactacaggt gattgtatgt ccagcttcca actcgtgcct cagaggaaat 60
 acactgacaa cttcaaaact tgttgaaatt caagatggaa ttctggaaca agtattcctg 120
 gacaaacctg ttggtgcggg ctctgatttt cgtgactggt gatcggttc agtctgacga 180
 ctcaatgtgt ccacaggaca tggatatacgg ctgcaagcgg atttgctaca gtaactgtga 240
 caatctaaac agcaccagtg aaggctgcat tgagatatgt aagctgggat gcgaccgact 300
 cgag 304

<210> 1985

<211> 474

<212> DNA

<213> Xenopus sp.

<400> 1985

gaattcggac tactacaggt ggtggataac tgtgtgttca aacgtggtga caaggagacc 60
 acatgtacag atctggaggg attctgggat atgatctatt ttcagataga agatgtaaaa 120
 gcaagtttg ttaatcttgg caagctggag gagaattctt ggcaacaaaa cacagcccca 180
 accaaaaaaa tcataaagaa aaagattgcc cctgctgcaa catcaaagtc aagccaaggg 240
 gataattgca gggctgctgc tcgtagtgcg ctogetgcta ttaaagctgc cttgaaaaac 300
 aaaggaaagc agggagagcc caatgtagag gccccagcac tgcctaccca agttgaagaa 360
 gttgtgttcg atgcagggtt ttttcgagtc gcaagccctg ccaaagttgc taacagtttt 420
 agggcaaaat gcagttcttc ttggtcatcc cctactcccc agccccact cgag 474

<210> 1986
 <211> 347
 <212> DNA
 <213> *Xenopus sp.*

<400> 1986
 gaattcggac tactacaggt gaaagacacc attagaaaaag ccctggaaaa ctccaacggt 60
 gtcattaacc taatcggaaa agagcgggaa acaaagaatt ttagttatga agatgttttt 120
 gtgaatatcc cgagagatct tgcactgcta gcacgggagg ctggagtaga gaaattcate 180
 cacatgtccc atcttaacgc tgacctgaaa agcccatcaa agtatctgag gaataaggct 240
 gttggagagg ccgctgtaag ggaggctttc ccagacgcaa tcatcatgaa gccttcagaa 300
 atgtacggca gggaagacag attcttcaac cattatgcaa actcgag 347

<210> 1987
 <211> 275
 <212> DNA
 <213> *Xenopus sp.*

<400> 1987
 gaattcggac tactacaggt gaaaaaaaaa ctgcagcact cttacaagtt tctgtgctgc 60
 atattgccaa taatgggtgc aacaacctcc tggatattaa tctacaata tattttgttt 120
 tgaacttcat ggggtgcaga aacctgctta tgcattccaa cctactgcag gtagggaaga 180
 gtgcaaagtg cgtttgtttt acctagattt ctgaaatgtg ataattctcg aatgtttttt 240
 atttcacttt tattttatga ctgtgtaagc tcgag 275

<210> 1988
 <211> 489
 <212> DNA
 <213> *Xenopus sp.*

<220>
 <221> unsure
 <222> (17)

<220>
 <221> unsure
 <222> (22)

<220>
 <221> unsure
 <222> (25)

<220>
 <221> unsure
 <222> (61)..(62)

<400> 1988
 gaattcggac tacgacnggt gnaanaactc atacaggtga gaagccattc aagtgtgagt 60
 mngaaggctg cgatagaagg ttgtcaaaca gcagcgacag gaaaaaacat atgcatgtgc 120
 acacgtcaga taagccatat atctgcaaag tgtgtgataa atcctacact caccocagct 180
 ccctaagaaa gcacatgaag gtccatgaat cacaagggtc tgattcttcc cctgccgcca 240
 gctcagggtg cgaatctgct accccaccag caatgggttc tgccaacagt gtggaacctt 300
 ccaaaaattc atcagcaaca catcagacta acaacaattc tcataacaca ggactacttc 360
 cacctaattt taacgaatgg tatgtctgag caaaatgtag agaggcctag tcatgctcaa 420
 caaaaggacc atgtgcaaaa aaacagaatc caattttttt tatgttgaac caaggcggaa 480
 atgctcgag 489

<210> 1989
 <211> 507
 <212> DNA

<213> *Xenopus* sp.

<400> 1989

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gaattcggac tactacaggt ggggtacatg gcttctctcc gactgtctgt gctgctcgtg 60
tccgtctcat ggctgctgct gctgggtgtct ggggtccgcg ccgggcctcg cactcttctc 120
ttaatggaga acatcgacct gcgggagacg cactctctct tcttccgcag tctatcggac 180
agaggatttg acttgctctt caaaacagct gatgatccga gcttgctcct tatcaagtac 240
ggggagtctt tgtacgacaa tctaaccatc ttttccccct tcgttgaaga tttcgggggg 300
aacataaaca ttgagaccat cagctcatte atcgatgggt gcggaagtgt gctgggtggc 360
gcaagctctg atattgggga cctctcccg gagctgggca gcgaatgtg cattgagttt 420
gatgaagaga aaacagctgt aattgatcat cataactacg atatctccga cccgggccag 480
cacacactta ttagggccga cctcgag 507
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<210> 1990

<211> 294

<212> DNA

<213> *Xenopus* sp.

<400> 1990

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gaattcggac tactacaggt gttccagttc agtgaaccct cagttaaata tacttgatgt 60
tagttaatga taatggaag gttatgtcat tataaaaaaa tgaatcaagt ctgagatgg 120
ttttcagctt gtgaacaaac aaaagggcat caaccaaagg ggaacaaatt aaatactctg 180
gcactattag cagtgtggtt gttccttaac agccatttcc ttgcattgg ttctggatct 240
cgtagatctt tctttttttt tttaaatgta tttgtatgca ctgtgtaact cgag 294
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<210> 1991

<211> 279

<212> DNA

<213> *Xenopus* sp.

<400> 1991

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gaattcggac tactacaggt gaaagacatg aacaatgttg ggtagtaaag cagtagaaag 60
tcagcaaaagc tactaaatgg cttgtgaaat gtcttggttt agaattggtgc taaacttccc 120
actgaaatcca taactattgc catcttaagc agttattctg tgggtgtgctt aaaccttatt 180
gttaaaacttt ttgtttttta attgaatacc ttgcaagtag aatttgtggc atgagtaatc 240
agtctttgct gaaccacaac ttctgacca gtgctcgag 279
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<210> 1992

<211> 302

<212> DNA

<213> *Xenopus* sp.

<400> 1992

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gaattcggac tactacaggt ggagaaacat agccactgtg acctgttcat atgtacatca 60
ttgtacaatt tttttagtgg atgcaattta ttttgtgtga ttgtacatta ctgaactgga 120
atgtaaactgt tctcagaagg gttcattttt gagaattgaa tgtctggctg gaaatttctg 180
atcccatacc aaaactgggt ttgtaagcca tatattacat gtgaaacata cattgagtta 240
attgcaatag gcttaaaaag gaagtagcat attccagcca tcataccagc agcccgctcg 300
ag 302
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<210> 1993

<211> 554

<212> DNA

<213> *Xenopus* sp.

<400> 1993

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gaattcggac tactacaggt gggccacagc aatatttctg ccgttctatc agaagttcct 60
gttggcatgt ggtacctgaa gagagccgtg cgtcgtatcc atcggcagct tcttgtgtga 120
atttcttctg taaaaacgga cgcagtctga gaaacggata aagctccatt gcgcacgtac 180
ttattcagtg tgcctgccat gtatatacct tggagtgtat ttattgttgc atatcgttctg 240
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taagtcttgc acatatcttc atgttttctt catgaaatat ttttaagaaag gtgtggccag 300
 cataatctct tgtttttacat ttgtattgct ccttgrrtat aaatgtacat gtcattgcaac 360
 gtaattgttct ttattttacag gctgctgtat acgcaacttc aaattgatct ctttttgagca 420
 acggcagtggt aaataaagca cagtattagc ggaaaaccaa cagttagtgt cctttgtaca 480
 gagcttcccc tgcagtcatt ttaaatac acataatgct gatgtacagc ctagctagag 540
 cccagtcact cgag 554

<210> 1994
 <211> 279
 <212> DNA
 <213> *Xenopus sp.*

<400> 1994
 gaattcggac tactacaggt ggtaaagatc cagggcattc gagttaaga cgagagccca 60
 ggaatcaggg attttgaagc aagtttcatc agactaatgg ataaaaataac aaacggcaca 120
 aggatcgaga tcaacgaaac tggtagctct ctgtactatc agccccgggt tctctctgga 180
 ggaaccttgg agcatgactg caatatactg cgtctctatc gctattatct agaaagtctc 240
 ttttgccctag ctctctttat gaagcaccgc catctcgag 279

<210> 1995
 <211> 298
 <212> DNA
 <213> *Xenopus sp.*

<400> 1995
 gaattcggac tactacaggt gcaaaatgga aacatgtttt agcagttgag attaagtttt 60
 gtacagatcc ctttaagagc tcttacacat gcagagtgac atatgctagt gtgagcctga 120
 aacattcttt ctataggctt cttgtactgt ccgttcaagc taacttgatt tataaacctc 180
 tgcttgctcc tttgctgag gaatatcttc attttcagtt gaagtgaact tgtatcaaât 240
 ctaagaattg gcatttttggc taccaggtc tcttggtat aaataaaggc ccttcgag 298

<210> 1996
 <211> 325
 <212> DNA
 <213> *Xenopus sp.*

<400> 1996
 gaattcggac tactacaggt gcagaaccgc aaaagaaatt gatcaagaag cccaggtcag 60
 ccttagtgat ctaagggacc cacaacatga ccttgacagg gtgaagaagc cagagtgggt 120
 cattttgatt ggtgtgtgca ctcaacctgg ttgtgtgccc attgccaatg ctggtgaatt 180
 tgggtggttat tattgcccct gtcattgggt ccattatgat gcattctgga gaattcgcaa 240
 gggctctgct ccattgaatc ttgaagttcc agaatacagag tttccttctg aagatttagt 300
 aattgtcggg taggtacgac tcgag 325

<210> 1997
 <211> 439
 <212> DNA
 <213> *Xenopus sp.*

<400> 1997
 gaattcggac tactacaggt ggttttagtg tatcatcagt tgtgatttgt gtttagtcag 60
 gttatctatt acaagtacca cttagcagtg ctgaaattcc gggagaacta attgctccga 120
 taatacgttc catctaatc atcctcgger atgtgcgcta aaacaaattt taattttgaa 180
 gtggacctgt cggccagaca cggaaagctg tgtgatggag gtccttttca ggttgaacat 240
 gtccaaaaat ccggattcta tcttttggtt aagcatctat ggctgtaggc tcgtttgggg 300
 atctcagctg tcaatcagat gtggtctgcc cctcctcggt gccttagggc ggcattggag 360
 cgggacagac ggttcctatc gctttccatt cggcgcttcc tgggtgtcgc tgetcttcgc 420
 acgttccccct attctcgag 439

<210> 1998

<211> 409
<212> DNA
<213> *Xenopus sp.*

<400> 1998
gaattcggac tactacaggt gggctacccct atcacccttt atctggaaaa ggagcgggaa 60
aaggagatca gtgatgatga ggcagaggag gagaagaag aaaagaagga agagggaagga 120
gagaacgaca aacctaaaat agaggatgtg ggcctctgatg aggaagagga agggaaagat 180
aagaagaaaa agaccaagaa gatcaaggaa aagtacattg atcaggagga gctgaacaaa 240
accaagcccg tctggaccgg caaccctgat gatattacac aggaagagta tggagagtgc 300
tacaagagtc tgaccaatga ctgggaggat cacctggctg taaagcattt ctctgtggaa 360
gggcagctgg agttccgtgc tctgctattc atcccccgcc ccgctcgag 409

<210> 1999
<211> 364
<212> DNA
<213> *Xenopus sp.*

<400> 1999
gaattcggac tactacaggt gcaatttact tacaatgtag gtggtttgta gttcagttga 60
agttaaattg gtattgtcga actacaaact actttcacac tatatagaag ttgcttagaa 120
ttagctattc tataactcac ttaaaattac cttaaagggtg aatcaccact ttaagccacg 180
tgtctcataa gaagaaatga tctacaaaat aacttttaag gctgaatttg gtaaatattt 240
ggatgcagag gtaaaggagg ggattattac tggagaacc agtgattagt ttgagtgcga 300
agaacaaata ttctgtatat atactttccc ccaacaaaca tgctccacc tgtagtagtc 360
cgaa 364

<210> 2000
<211> 308
<212> DNA
<213> *Xenopus sp.*

<400> 2000
gaattcggac tactacaggt ggagccatgg gtccctggag gtatctgttt gggctgtgct 60
ggttcctgca ggttcatttt gcccgatcgg ctgttccttt gcttgcaaac tccgatttct 120
ttagoctcaa tcccaactcag actacgatta cgttggaaag gccgttctgc atgtttaaag 180
atgccattga cgtttatctc ttgtccattg tgaaagggtg cacaagcatc caagttgctg 240
atgccgcaa gaagggtatt gcctctaact acactggaac ccaggagggc ctactgggac 300
ttctcgag 308

<210> 2001
<211> 304
<212> DNA
<213> *Xenopus sp.*

<400> 2001
gaattcggac tactacaggt ggttggttat cctgagagtg tgaggtacgg gaataagaga 60
gaggaaggtc atgcccacca tggggaagaa acagaatggc aagagcaaga aggtggagga 120
agccgagcct gaagaatttg ttgtagaaaa agttatggac aggcgtgtag taaatggaaa 180
ggttgaatat tacctcaaat ggaaagggtt tacagattca gacaacacct gggagcctga 240
ggaaaactta gactgtccag agttgattga agcattcctt aattctcagg aggcagggct 300
cgag 304

<210> 2002
<211> 372
<212> DNA
<213> *Xenopus sp.*

<400> 2002
gaattcggga ctactacagg tggtaaatat ggagactctc ggtggagcgg agggagggga 60

gacccaaca gaagagccgg acaatgtaga actaagaaga cgccgacttc agaaactgga 120
 aacaacagat tctcaataaa agacttaacc ctctctgaca tttccaaagt ctctctctctg 180
 acactgaacg accaggggaaac ttctgctttc tgaaaagcta cgttttgctt tgcgaggact 240
 cagcagccat ctttggcaaa ctttgatatg aacttcgtta aatataatata ttttttacga 300
 ctacacaagg gttcttatgg cagatgctca gtgatgaaag gactactggc ctcaatatcg 360
 gggggactcg ag 372

<210> 2003
 <211> 287
 <212> DNA
 <213> *Xenopus* sp.

<400> 2003
 gaattcggac tactacaggt ggtggattta cctgaggaaa acagagaggc tgcatacaat 60
 gccattactc tgcctgagga attccatgac tttgatcagc cgctacctga tctggatgac 120
 attgatgtgg ctacgcagtt tagcttgaaac caaagtcgag ttgaggagat tacaatgagg 180
 gaagaagtta gcaacattaa tatcctgcaa gataatgatt ttgttgactt tggcatggac 240
 gaccaagaga tgatgcgaga aggcagcgt tatgaagatg actcgag 287

<210> 2004
 <211> 414
 <212> DNA
 <213> *Xenopus* sp.

<400> 2004
 gaattcggac tactacaggt ggccatgcag catcttttga gcttcattctt tttcttgcat 60
 cttcttcgag gttctgccag ccaaaccatt gaggcagact gcaatgacca caatatattt 120
 tacgcagtag ataaggcact gagacaccac aacaaggcgt taatagatgg aaaccagttt 180
 gttctctata ggatcacaga tgccaagata aagactgata atagcgatgg gatacataac 240
 tttgtcagct atgatatacg agaagggttcc tgtggagtaa aaagtggcaa attgtggcag 300
 aattgtgatt ttaagcaatc tgatgaaaaa gtgggtaagt gttcggcaca cgttgtagtc 360
 aacaaagagt tcaagaccag tgaagtcac tctcagaact gtagcacact cgag 414

<210> 2005
 <211> 280
 <212> DNA
 <213> *Xenopus* sp.

<400> 2005
 gaattcggac tactacaggt gatcatcaga gatcaaaaga cagggatcgg caaaggattc 60
 ggctacggtt tatttgagag tgcagacgcc gtccaactag cgctgaagct gaacaactct 120
 cagctctcgg gaagaaggat ccgggttaag cgcagcgta cggcagaggc cgcccaaaaa 180
 agtacaaaca aaacaagttt taagcagaag ttggacacat taaatcaaac aaaaccgatt 240
 aaggccaaca gttttgtcgg cgaaacagcg gagcctcgag 280

<210> 2006
 <211> 319
 <212> DNA
 <213> *Xenopus* sp.

<400> 2006
 gaattcggac tactacaggt gcatgaggat tctgagctta ttgcattttt ctgggaacct 60
 accaaacacc cccattgccg gtgttctgag tacgctaggt cttagettct ggtgtccacc 120
 cctactttca ccaaacatat catctacaag aagctgcttc tgtgccatgg cagaaatgca 180
 agatagtcac aatgaaatgg ggcgtgtcac cccaaatcct gaagtacgtg ggaatgacttg 240
 tctaaatcgg gatgctttca ataaaacat acacgttccg gtaattaaag taagaaaga 300
 aataatcaat agactcgag 319

<210> 2007
 <211> 315

<212> DNA

<213> *Xenopus* sp.

<400> 2007

```

gaattcggac tactacaggt gcaagcttta cagtaagaca tcccatggta ccatatacct 60
ttataaggct tgacattgca tgaatatatt agcttgaac aaatgtgaaa aataaactaa 120
cagtaaaata attagcttac atgaatacaa agttaaaaca aaatatgtat tagttcaaag 180
attcagcaag gcatacataa tgaataaaac aactttgttc tacagtgtct agagattgct 240
gcttagccaa tatctagatg atatgtacct gtgcaaatcc ttaacagtgc agaaaaaacac 300
ctgtagtagt ccgaa 315

```

<210> 2008

<211> 332

<212> DNA

<213> *Xenopus* sp.

<400> 2008

```

gaattcggac tactacaggt gtacaaacct tccaggttat tctgcaacag ttttactaat 60
ttttctgagg tggccatagt acatttgtga ttgcctatgg gggttgatgt actgttgggt 120
gggtgcattc acaaccggg gtggcacact gcacatatga taaatacttg tcttatatta 180
ataggcctgg ccttgccac taatatggaa aaacccatt ataagatggc tgtgtggcta 240
ctggctgtga taagcagcat agcaactctt taccatataa caaaaaagt tagcttgcgt 300
gtgatctcta ctgccaacg tgtgtctctg ag 332

```

<210> 2009

<211> 274

<212> DNA

<213> *Xenopus* sp.

<400> 2009

```

gaattcggac tactacaggt gagccaatga actgggaatg cttctttaca gtttccttga 60
cacgtttctc ttccaggtag tcagtctgat ctccctcag atgcaggatg actttggtag 120
cacggccaat gggctcacca gtatcaacct tcacagtga ggagccacca gcagaggatt 180
ccaagcata ttgctcatca tcattgtgtt tggtaatgac cacaaccttc tctgccacca 240
ggtatgcaga atagaaaccc acaccgacct cgag 274

```

<210> 2010

<211> 326

<212> DNA

<213> *Xenopus* sp.

<400> 2010

```

gaattcggac tactacaggt gcattgatta gatcactgca gcataactgt ataaatatct 60
atagactaag gtgcatttct agatgctgga aaaactgcag cacaggatgg gccaaatgtg 120
tactggaagt tttggttgca gaagtttaaa ggtaaggaga agttggcagt gatggaccgg 180
attatgggat ggtctttgta agcctctgtc gtaaaggggt tatttgcctt tgggttgact 240
tttagtatga ttagagagag tgatccccag ccagtggctc atgaacaact tgttactccc 300
agtggcctca aagcagatga ctcgag 326

```

<210> 2011

<211> 265

<212> DNA

<213> *Xenopus* sp.

<400> 2011

```

gaattcggac tactacaggt gcaacatcaa gccagcttgg attgataata gtcacaattg 60
gactaaatct tccccacta gccttcttcc acatttgcac tcatgcattc tttaaagcta 120
tattatttct ttgttcaggt tctattatcc atagccttaa tgatgaacaa gatattcgaa 180
aaataggagg cctacaaaat tctttaccaa tcaactacac ttgcttaaca attggcagcc 240
tagccttaac cgggacaagc tcgag 265

```

<210> 2012

<211> 335

<212> DNA

<213> *Xenopus* sp.

<400> 2012

```

gaattcggac tactacaggt gagaagatag aaaagaggcg gcagatcccg ttccacatgc 60
acatcaacct ggagctgctg gagtgcgtct atcgggtgtc ggccatgttg ctggagattc 120
catcacatggc tgcacatgag ttcatgacca ggagaaggat gattagcana cagttccacc 180
accagctccg tgtgggcgag aggcaaccac ttctagggcc cccggagagc atgagggaac 240
atgtagtcgc tgcttccaaa gcaatgaaga tgggagactg gaagacctgc aagaacttca 300
tcatcaacga gaagatgaac gggaaaggtc tcgag 335

```

<210> 2013

<211> 281

<212> DNA

<213> *Xenopus* sp.

<400> 2013

```

gaattcggac tactacaggt gcaaatcaat gcatggttgc taggggaatt tggaccctag 60
ttaccagatc acttaagatg caaattgaag agctgctgaa taaaaagcta aataactcaa 120
aaaccacaaa taataaaaaa tgaanaacaa ttgcaaatg tctcagaata tcaccctcta 180
cattgtacta aaggtgaaca accactttaa taaatagcag tgtgctcggc attaagtagg 240
tcaataaatg gctgtttgcc cccattcaag caaacctcga g 281

```

<210> 2014

<211> 365

<212> DNA

<213> *Xenopus* sp.

<400> 2014

```

gaattcggac tactacaggt ggcttctttc attctctgtc ggactttgag ctgggtccaga 60
cgttttttat ccacctccct ctttgccagc aggaagagca ggatgccaga tggaaagccg 120
atggcccatg ccagacctac tttcttcaga ggttttttgg ctttgcgctg ggggatgtac 180
tctggtgtcc tagaggcctg ttcttctagc tcagggttgg cccacagacg tgagtgggtg 240
tgcaactgct ttgcattgtg tggatggag gactggaaag cagagaactg tgacttcaca 300
gagtcaacca aggcagccca catgcgccct cttctcactg acgccaacat ctttcgcgac 360
tcgag 365

```

<210> 2015

<211> 384

<212> DNA

<213> *Xenopus* sp.

<400> 2015

```

gaattcggac tactacaggt gaagtgggtt ggactactaa gtgaggagcc agtgccctgtt 60
gcagactcaa ttgttgatgc tctggccaaa cacttgaaa ttatgctctc atttgggcca 120
ggagaaagag acatgattgt tttgagaaat gatattggca tcagacatcc ttctggccat 180
ttagaatcca aaaacatcag tttggtcgtc tacggagatg taaatggcta ctgggcaatg 240
gctaaaactg tgggtcacc aacagcaatt gctgctaaaa tggtttttga tggggaagtt 300
gaaagcaggg gcctggtaat tccactgacc aagaatatct atggaccaat attagaacct 360
gtcaggggaag aaggattctt cgag 384

```

<210> 2016

<211> 339

<212> DNA

<213> *Xenopus* sp.

<220>

<221> unsure

<222> (114)

<220>

<221> unsure

<222> (117)..(118)

<400> 2016

```

gaattcggac tactacaggt gcagatacaa aggcccaaaag ccagatccct gcttgaacag 60
tgaaaacaata cegttaaaga gggattttct ttgcttaaac tgaattactc tgcncnnca 120
agaaaagatt ccaacaccag gacaaatata caacatgttt tctccccccc cccccccat 180
ttttttcttt tctcccgaat ctcttacgta ctttcaataa tataaataga tgtttgtgtt 240
ttacatcact ctagaagcct ttcttgcac aggggtgcag gatgaacctt tttaaaggag 300
tattttctcc atctttcttg acatgacaat gccctcgag 339

```

<210> 2017

<211> 430

<212> DNA

<213> Xenopus sp.

<400> 2017

```

gaattcggac tactacaggt gggggggcccc aaatacagcc atctgaacat ggaccttcat 60
gtgttcataag aggtcttttg accaccatgt gaattctata caggtatggc acatgcaatg 120
gaagaagtta aaaagttctt ggttcgcgtg acacctgagt cttttccata ccaggacatg 180
atggatgata tctgccagga tcagtttatg gatctttctt atcttaatgg agcagcaacca 240
gagcaaaccc gaggaggatc aagagggtga ccaaccaggg gccgaggggg ccctccacct 300
cctgtagctc cttcttctag aggaagggtc gggcctcttc gccctcttgt tccaagaggt 360
gcccttggtc gtggagccat aacacgtggt gccagtgcac gccgtcctgt acctccatct 420
gcttctcgag 430

```

<210> 2018

<211> 367

<212> DNA

<213> Xenopus sp.

<400> 2018

```

gaattcggac tactacaggt gaaaatttct agagttgcac ttgaaaacga atgaggctcg 60
aaagctaaat catcaagaag tggtagaaga agacaaacga cagaagttgc ctagttaactg 120
ggaggcacgg aaagcccgtt tagaatggga gctcaaaaac gaagagaaga aaaggggaatg 180
tgcaagctaat ggtgttgact ttgagcggga aaagcttttg gaaataagtg cagaagatgc 240
tgaaggttg gagaggaaaa agaaaagaaa aaatcctgac ttgggatttt cagactatgc 300
agcagcacag ctacgccaat atcagaggct gacaaagcaa attaaaccag acacggaagg 360
actcgag 367

```

<210> 2019

<211> 345

<212> DNA

<213> Xenopus sp.

<400> 2019

```

gaattcggac tactacaggt ggagatgacg ggggaatggag cgaacgaccc gaggagaccg 60
gggaaaatac accggtataa agccccaacc acagagagct ctccaactca agacgaccc 120
acgcctgatt atatgaacct gctggggatg atattcagta tgtgtggtct catgcttaag 180
ctgaagtggg gtgcatggat tgcagtttat tgcctcttta tcagctttgc caattctcgc 240
agctctgaag acaccaagca aatgatgagc agctttatgt tatccatctc tgctgtggta 300
atgtcttate tacagaaccc acagcccatg tcacctaccc tcgag 345

```

<210> 2020

<211> 298

<212> DNA

<213> Xenopus sp.

<400> 2020

gaattcggac tactacaggt gaccttgttg aaagtacaac gccatgggtc ttgaactgtt 60
 aggcccaagt ttagaagatt tgtttgacct gtgcgaccgg acgttcacat tgaagactgt 120
 gctgatgatt gcaatccaac tgatctcaag gatgggaatat gtacactcca agaaccctcat 180
 atacagagat gttaagccag agaactttct tatagggcgc cagggaaata agaaggagca 240
 tataatccac atcatagact ttggactagc caaggagtat attgaccggg atcttcgag 298

<210> 2021

<211> 289

<212> DNA

<213> *Xenopus* sp.

<400> 2021

gaattcggac tactacaggt gggggagcgg agacagtgcg cggggcacac ggagcggagc 60
 aacagatata ggaatacgcg acttgggtgc acgttctatt gctgagacgc aagggaagaa 120
 caagggggccc cagggaaacg agcgacggat aagaggatcg gggtaaatgg tgattggagc 180
 ccgcagggat caccgccttt ggtcttttct cttgggtgctg tgcccagttt tgcaggcaca 240
 acagattact gtcaacgaga agatgactgg taccttgagc cagctcgag 289

<210> 2022

<211> 531

<212> DNA

<213> *Xenopus* sp.

<220>

<221> unsure

<222> (284)

<400> 2022

gaattcggac tactacaggt gctccaccaa attcgtgacc tatttctgtg agcaagtgtt 60
 tcccatcctg agctctctca ccagcccagc tgaaggcatt gatgtccagc tagaggtgtt 120
 aaagtgtgtg gctgaaatga gctccttctg tggcgacatg gataaacttg aatccaatct 180
 gaacaaactg ttcgacaagt tgctggaatt catgccactt cctcctgaag aggttgagaa 240
 tggggacagc gctgccaatg aagagcccaa acttcagttt agcnacgttg aatgtttact 300
 gttcagtttc caccagctcg ggagaaagt ggcggacttc cttattgtcta aagttgacgc 360
 agagaagcta aaagacttca aaatcaggtt acagtatttt gctcggagtc tccaagtcta 420
 tattcgtcag ctccgcctca ccttcagggt aaaatctgga gatgtcttga aaacagaaga 480
 gaacaaaatt aaagtcgttg ctctgaaaat aaccaacaac atcaactcga g 531

<210> 2023

<211> 408

<212> DNA

<213> *Xenopus* sp.

<400> 2023

gaattcggac tactacaggt gggtacacca caaagtaaaa ttgtatggat ttctgaaacc 60
 ttgtgcattg gatgtggtat ttgtatcaag aaatgtccct ttgtggcttt gtccattgtc 120
 aacttgccaa gcaatctgga gaaggagaca acccacagat attgtgccaa tgcccttaag 180
 ctccacaggt tgccatttcc ccgacctgga gaagtacttg ggttggttgg taccaatggt 240
 atcggaatat ctacagcatt gaaaattttg gctggaaaagc aaaagccaaa cctgggaaag 300
 catgatgatc ctccagactg gcaggagatc ttgacctatt tcagggggtc agagttgcag 360
 aactacttca ccaagattct ggaggatgac ctgaaggcca tcctcgag 408

<210> 2024

<211> 324

<212> DNA

<213> *Xenopus* sp.

<400> 2024

gaattcggac tactacaggt gttatttggg agaagcagtg atgaatctag atcacagcga 60

tcecgtagact agagaccaca tggggaccgt tttaaatcaa gtgcggcaga aactttacca 120
 gttcttgcaa gctgaacctc agaattgctt acaaaaacct gctcgacgtc tgttgataat 180
 gctacaagga ctgggtgctc ctacactgag ttaaagatcc tgcaatgaaa atattttaatt 240
 gtgatccaaa attaccaaca tcttcaggca attccattg ttaaaaattg aaagcattta 300
 ttttagtata cgtccgtgct cgag 324

<210> 2025

<211> 276

<212> DNA

<213> *Xenopus* sp.

<400> 2025

gaattcggac tactacaggt ggagaaagac cataaaggaa aggaaaagggt ggagagaata 60
 aaggatcata gcagtcaccac agattttgca atgaacgagc tagaaaaggc ctatcggaia 120
 agccagtcac caaaacgctt caaaatgcga gagggatttg ataaattaaa actggcagag 180
 ctgcgttttg ccaaagagga agcagaacag gagaaaaaag ggcggtccag aaaggattcg 240
 gacagcgact ccaaaaacca agacccaaac ctccag 276

<210> 2026

<211> 430

<212> DNA

<213> *Xenopus* sp.

<400> 2026

gaattcggac tactacaggt gctcgtatag acaaggggga gccatcacatg agcatccagc 60
 ctgctgaaga tccggacgat tatgacgatg gattctccat gaagcacaca gcagctgccc 120
 gtttcacagag gaatcacaga ctgacagtg aaattctcag tgaaagtgtg gtgcccagatg 180
 tccgttcagt agtcacgact gctcgaatgc aggttcttaa aagacaagtt cagtcgctca 240
 tgggtgcacga gcgcaagttg gaggcagaat tgttacagat agaggatcga caccaggaaa 300
 agaagagaaa attcttgga agcaccgatt cctttaacaa tgagttgaag cggctctgta 360
 gtttgaagggt ggaggtggat atggataaga ttgcagcaga gatcgctcaa gcagaagatg 420
 caggctcgag 430

<210> 2027

<211> 466

<212> DNA

<213> *Xenopus* sp.

<400> 2027

gaattcggac tactacaggt gatctcatta aagttactgt gttctgcagg gatattgcta 60
 tcctactatg ctgttccatt tgggtgatac aggcggggcc accccccttc ttctgtttaa 120
 gtagtgctgg gaagtggatg ggtgctgatg ggcagagaag cacctgttag tagactgcta 180
 ggcctgtcct cctgtagcat tgtctctgaa ctttaagctg ctgtattttt gggttacatg 240
 aaaagttaa ttttatgagt ccacttaaaa ttgcattcct ttagtgtaac aaggcaggac 300
 agagcctggg tgcgctgtac atagtggcta caccctcttg atacacaaag tgaattagt 360
 ttcatactc cagtaaacaa tgcagaagt tcttaaaatg tttgtttata ctgtcctttt 420
 ctttttttac taaaacatgc aactattgta ctgaagtgaac ctccag 466

<210> 2028

<211> 485

<212> DNA

<213> *Xenopus* sp.

<400> 2028

gaattcggac tactacaggt gtggatgtag acacaccaag cgggacgaac aacagcgcta 60
 gtaagaagcg ctttgaggtt aagaagtggg atgcagttgc gctttgggct tgggacattg 120
 tagtggaaca ttgtgccatc tgcagggaacc acatcatgga cttgtgcata gagtgcgaag 180
 caaaaccaag ttctgtact tggaggaat gtactgtggc atggggtgta tgaatcatg 240
 cgtttcactt ccactgcatt tgcgctgggt tgaagactcg acaagtttgc ccgctggata 300
 atagagagtg ggaatttcag aagtacggtc attagaagct ccgcatgcat agatgtgagg 360

cagtgtcacg gctgcagcct acttcagtca ggcagaacat tcaactgctt tccggcttag 420
 caccitgtca attatgatct ctgacctggt cgtcatgttg acacacaacc cacctcccc 480
 tcgag 485

<210> 2029

<211> 347

<212> DNA

<213> *Xenopus* sp.

<400> 2029

gaattcggac tactacaggt gactgtgtgg gggctgggga gacacagaga gggagagaat 60
 gcctgctgca gcctgcagtg tgccgccgcc cactacgacc acatggtaaa cctaataact 120
 aggtaaacct agtcagtctg tgtccaatt ctccaaaact tgtcttttct ctctgtctgt 180
 cagagtgcgc tccagagggg tgtaggagag agaggggatt gaagctgttc tgctgcagag 240
 tagtgctgtt aatagaatga aggagctgtg gctgagctca gaactgagat gacactgttg 300
 ctgctttttt tgcacaaaaa tttagcaaaa agaggggcct gctcgag 347

<210> 2030

<211> 302

<212> DNA

<213> *Xenopus* sp.

<400> 2030

gaattcggac tactacaggt gctatgtccg actccgagca gcagtatatg gaaacgaacg 60
 ccgagaacgg ccacgaagct tgtgatgccg aagcggccga ggtatgggg gcccggggag 120
 gccaaaacga cgccgaaggc gacagatga acgccagcaa aggcgaggag gaggcaggga 180
 aaatgtttgt cgggtggttg agctgggacg cgagcaaaaa ggaactgaaa gactactttg 240
 aaaagtgttg tgaggtgtct gactgcacaa tcaagatgga cccaataag ggagatctcg 300
 ag 302

<210> 2031

<211> 355

<212> DNA

<213> *Xenopus* sp.

<400> 2031

gaattcggac tactacaggt ggaagaaaaa tttggccagg cagagaagac tgaacttgat 60
 gctcacctgg aaaatcttct cgcgaaagct gaatgcacaa aggtttggac tgagaagatc 120
 atgaagcaga cagaggtgct gttacaacca aatccaaatg cccggataga agaatttgtg 180
 tatgagaaac ttgaacggaa ggcaccaagc cgtataaata ccgaagagca attagctcag 240
 tatatgaatg atgctggtta tgagtgtggc cctggaacag cgtatggaaa tgctctcatt 300
 aagtgcggag aaacacaaaa aagaatagga gtggctcaca gaggacttgc tcgag 355

<210> 2032

<211> 334

<212> DNA

<213> *Xenopus* sp.

<400> 2032

gaattcggac tactacaggt gctctccgca gcccacccc tccggccaag atgtaccgcc 60
 tgtatgagca ggtctcctat aacagcttca tcgcagccgc catctacatt gtcttggggg 120
 gctctcctt ctgtcaagtg agactgaata agaggaaaga atacatggtg cgttgacctg 180
 ccccagttc agctagaagg tggctgacc cacttgaaa ccaacctcc cacttcttct 240
 ctatgtttca atcaagccac cgcacacaga cccacttaaa ggggttggtc acctttaaat 300
 gaacttctag tacgatgaag agaggattct cgag 334

<210> 2033

<211> 354

<212> DNA

<213> *Xenopus* sp.

<400> 2033

gaattcccat agcaacaaac agtagaacac acagctgttt actggacatt tagaggactc 60
 cactttaccc. gctctcattt tgcggtcttg ccgcccgttg atctggatat cgaggtcgct 120
 gatcaaaaac aaaaagtgtt tttcaagaat atgttttttg caagtttato gaagcctggg 180
 aagaaccaag gaggatgggt ttgctcttca gatttgggaa agagtcgagt cgctccagtc 240
 gccaacgttt tagtagctgc cgtctcccaa acagccctct gtgtttttgt atgtttttgt 300
 gttacgggtt ttgggtttcat ggacatcgac aacgttttac cagcaaacct cgag 354

<210> 2034

<211> 384

<212> DNA

<213> *Xenopus* sp.

<400> 2034

gaattccata gcaacaaaca gtagctttta tacatgttag gaaaggaagc cccccccct 60
 atgatataatt ggattatttg tcaagacacc caactgctgc aagaagagaa acagatgccg 120
 aatataactt gatttcagaa acaatgcaga attttaaatt gattgtattt agaaagtgtt 180
 atacttttagt atgagygagac aaattacatt ttgcgaatag ttcacctaaag caagcatctc 240
 catattttaa cttggagaat tcaaccgtta attaaaaata ccctacagcc ctaccctaca 300
 cataccctcc cagcctagct gttactccgg gcaaatgtcc aggtttttgt tcatccctc 360
 ggtgcagatt ccgtccagct cgag 384

<210> 2035

<211> 338

<212> DNA

<213> *Xenopus* sp.

<400> 2035

gaattcccca tagcacaac agtaccagct tccagctggg gcctcagagg aaatacactg 60
 acaacttcaa aacttgataa cgacaagaaa ataaaaatag aaaaatgctg agagtgaagc 120
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 aggggggctg tgcgccta at caagtctgga attctttagt aactgcctgt cccttgaatt 240
 gtcagaactt cagaaaccca ccagatgtgt gcatattgtc ctgcaagaga ggggtgcttct 300
 gcaaggaacc ctatatattt caaaatgggg gactcgag 338

<210> 2036

<211> 364

<212> DNA

<213> *Xenopus* sp.

<400> 2036

gaattcccat agcaacaaac agtacacagg tatattgaaa tottcaagag cagtcgggct 60
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 agacgtggag catatggagg aggttacagt ggatatgaag attataacgg atataatgag 240
 tatgcttttg gtgcagatca gagatttggg cgtgtgtctg ataatagata tggagatggc 300
 agcacgtttc agagcacaac tggccattgt gtacacatga gaggactccc ccacagaact 360
 cgag 364

<210> 2037

<211> 582

<212> DNA

<213> *Xenopus* sp.

<400> 2037

gaattcccat agcaacaaac agtagggcgt aatatacctg cgtgtgacgt cacggattcc 60
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 cagaattctg aactattgat caaacgctct accaagtctc acatagaaca gcgtttgggtg 180
 gtgactgcat ttccgtaagt gagccgctc ttattttctc aggaccgggt actgattcgt 240
 gtcttccggt cagaccgaga taaacaaacg ggcctcagaa accaatcggc agactccatt 300
 cgtctctgac agcccgccta cgcggatccc atagtaatgg cgtgtgtgtt ggggtggctc 360

ctgctgctta tgttcccttt ggcgctggca cagcagcagc cagcatgtga tggatactcg 420
 gtcttggatg ggggttggctt gcctgcgata ggtacaccgg ctccggcagct aatgattgag 480
 ctagactcat cacgggtcgc caactccgag caggactgtt gggatctttg ttgttccacc 540
 gagcgctgcg aactggctga gatgtccgag ggaagcctcg ag 582

<210> 2038
 <211> 114
 <212> DNA
 <213> *Xenopus* sp.

<400> 2038
 gaattcccat agcaacaaac agtagcttgg cggctctcgag ggttgtgtag ttgtgaaatc 60
 atctgcacgc agttgtccat gttctacaaa ttcagttttg tagtctgtct cgag 114

<210> 2039
 <211> 344
 <212> DNA
 <213> *Xenopus* sp.

<400> 2039
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 cctatgtaaa tatataacac tatgattttt cttegatatg tgtcctttaa gagcaatcta 180
 gctttaatag gcaagctctt gagtgcctgag cagtacttac atagggaaca gaggagccct 240
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 cagaactgca catctctgcc acatggcctc accccaccct cgag 344

<210> 2040
 <211> 304
 <212> DNA
 <213> *Xenopus* sp.

<400> 2040
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 aatggagcga ctgtgctgct tagtggctct ggctctcttc tgccgggttcy gtgcccctga 120
 caccgccggt aactgctctt tccccgacct ggaaggcacc tgggagttcc aaataggaga 180
 gggcacccgg gcaactcggg acaagacctt tgactgctcc cagttgggta aagtgagaac 240
 caaactgaca gtcacactga aagaactgaa cattgctgag gatcagaatg ggaacgtgct 300
 cgag 304

<210> 2041
 <211> 405
 <212> DNA
 <213> *Xenopus* sp.

<400> 2041
 gaattcccat agcaacaaac agtaaggaga tcgtcactcc ctctgtggata aggaagtagc 60
 agcatgggtt ttgtggggaa gacgagcgcc tttgcggcag gtgttttgcgg ggcattgttc 120
 ctccgggtatt gcatttactt cgacagaaaa aggaggaatg accccaactt caagaacagg 180
 ctgcgagaaa aaagaagaaa acaaaagatt gccgaagaga gagcaggaca gtcaagggtta 240
 ccagatctta aagatgcaga ggctgtccaa aaatttttcc ttgaagaaat tcagcttgga 300
 gaggagttgt tggctcaagg tgattttgaa aagggtgttg atcacttaac aaatgcaatt 360
 gccatttgtg gtcagcctca gcagttgcta caggtaatgc tcgag 405

<210> 2042
 <211> 251
 <212> DNA
 <213> *Xenopus* sp.

<400> 2042

gaattcccat agcaacaaac agtaagctgg agaagccaga ggagcctggg acaagacatg 60
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 ttgtacact ggatgagtga ggagaactac attttcacct gtcagctctt caccctgctc 180
 tgctaaactg gttacagata gaacctgtgc atccttctcc attccttaaa ttagtacatc 240
 actggctcga g 251

<210> 2043

<211> 291

<212> DNA

<213> Xenopus sp.

<400> 2043

gaattcccat agcaacaaac agtaaaaaac aaaaaagagc aggcgccaga agaagagacc 60
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 gaaacatctc cagaagcagc tccagagaat ggtgaatgtg acacagcagc gccctctagt 180
 gataatacag aggaagtaca gcctgagcct gctgccctcc ctccaactga agattccctc 240
 aaacctgtag agagtgaagc caacacagaa gcccccagcg aaccctcga g 291

<210> 2044

<211> 360

<212> DNA

<213> Xenopus sp.

<400> 2044

gaattcccat agcaacaaac agtagtggtc agcaccaaat tgcaggttga ttaaagggtt 60
 caaaggagc agcacagcct ccaagacga gattacaaag ctagctaagc tcaatgaagg 120
 ctgagaagta aatcccttga gaagcatctc ccatagattt gcttaccctg ctaccagctg 180
 tcccttacc tgggaggttc aagaacggca tagtggtgt cattatatcc tccagttact 240
 ggttctgcag gtgtaattat gaggcactgt ccactttgac tgcgtctctt tatgctgct 300
 ctgcccaga gtccaatatt cctctcctag gttgctttcg tagatataga gctactcag 360

<210> 2045

<211> 281

<212> DNA

<213> Xenopus sp.

<400> 2045

gaattcccat agcaacaaac agtaaatcta agtatattct ggcaaatctg gttagctttg 60
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 aaactgcatt acactttgtt ctctggggca ctgataatta atatctgcaa tcagattaat 180
 tgccgttaaa tgcagcagtt tctagaggaa cacaaactag ttaagtagtg tttgttcaca 240
 gatgtataaa taaagtgtgc aggtgcttgc ccttactcga g 281

<210> 2046

<211> 467

<212> DNA

<213> Xenopus sp.

<220>

<221> unsure

<222> (71)..(72)

<400> 2046

gaattcccat agcaacaaac agtaggaggg gatccccgtt ttgagaaga agaaaaagaa 60
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 agacctgctt gagagcggca aggagagaat cctgaaacta ctcaacacgg gctcagtaaa 180
 ggaactgaaa tccctgcaga ggatcggaga caagaagccc aagctgatta ttggctggag 240
 agaagtcaat gggcctttta agaattgtgg agagttggcg tgtttggaag gaattcttgc 300
 taaacaagta tcgtccttta taaaggcaaa tatcatgagc agcatcgcca gctgaaacct 360
 gtaccatcat caggctgcgg cccgggtcat acacgctcca agggccactg attttattec 420

tcaccaacaa cttgaaatcc ctgagctccc tatggcaaag gctcgag

467

<210> 2047

<211> 294

<212> DNA

<213> *Xenopus* sp.

<400> 2047

gaattcccat agcaacaaac agtaaatgat tattgttatt tttttttttt ttatttcaca 60
gcaatagaac atacatttgt tgtttgcaca gatttccga gtttccgcct 120
gacctgattt tatttatgtt tttatttgat gttgcacaga atatgaattt ttggaaataa 180
ttttcccccg ggcaaaaaaa cataaaagtg gagaatgcag ggaccattcc taaaotccct 240
cctatataac cattatccat ctgttacctc agagcaaata ccaactcgact cgag 294

<210> 2048

<211> 525

<212> DNA

<213> *Xenopus* sp.

<400> 2048

gaattcccat agcaacaaac agtacaggga tgcgccatg taaaacagaa gggcaccatg 60
tgtgcgttat gagtctgctt tattttctat ctgagacaag cggttgcctgc cctgtcaaca 120
aaatattatt ttattgacac tttatgaata gaggctagc ctttttttgc actgtcatgt 180
tgtagaatgg accaaaaata accagcagac ccatgaacat tgcttaattt tttctgatg 240
ttgcaaaactg agtggccgga cacattttag gagtcaagca atcaacaaag ttctacattt 300
cctactagat cctctcaatt catccctata aatgtacagt acctggccat taaaggggaa 360
ctaaagtcta aaatagaata atgctagaaa tgcctgtattt tgtgtactaa acatgaactc 420
actgcaccag aactatgtta aacatctttg caagaccaag actgtgcaca tgcctcagtgt 480
ggtctgggct tctgttggga ggtaagcct agggatttac tcgag 525

<210> 2049

<211> 415

<212> DNA

<213> *Xenopus* sp.

<400> 2049

gaattcccat agcaacaaac agtaagaagt ccgtgtctgc ttatccagct gcaaaatgcc 60
caactgggga ggtggaaca aatgtggagc ctgtggcagc aatgtttatc atgctgaaga 120
agtgcagtgc gatgggaaga gttaccacaa atgctgcttc ctttgtatgg tatgccgaaa 180
aaacctggac agcacaactg tagccattca cgatgatgag atttattgtc gatcatgtta 240
tgggaaaaag tatggcccca aaggatatgg atatggccaä ggagctggca ctttgaatat 300
ggacagaggg gaaaggcttg gcataaagcc ggaggaaaat ctggcacggc agaataccag 360
ttcaaatcct tctaagtatg ctcaaaagtc tggaggtgct gagaaggacc tcgag 415

<210> 2050

<211> 414

<212> DNA

<213> *Xenopus* sp.

<400> 2050

gattcccata gcaacaaaca gtagccggaa ccatgatcgc tagggtgtta ggtcctcggc 60
accagcaact ggcaagaac tgggctcctg tctagccac ctggggatca gtaggagcag 120
tgggactgat atgggctaca gactggaggc tgtctcttga ttatgttcca tatgtaagt 180
gaaagttaa gtagagaaa taaacttcta ccgatccact gtctactatg agcatgtcct 240
ggatttggcc cagatcacia aatcttcagt gtccagtatg ttaatgcaag gaaatggaca 300
gaccgtcttt acaccttgga tgaagctgct tatttatgaa taaatgttgg acttgcgtat 360
ttcagaatta tttgtgaaa tgtattggtg tctactttaa ctgtactgct cgag 414

<210> 2051

<211> 432

<212> DNA

<213> Xenopus sp.

<400> 2051

gaattcccat agcaacaaac agtaattccc atagcaacaa acagtaaaaa ttgcccagta 60
 ccctaatgt gcaacaaaga gcaaacagct gtggagcaag tgccagagag ttctcaagt 120
 gagaagtgc ttgctttgga gcacatgcct gagccagaga gttctgaact ggaagtggaa 180
 cataagtctg agccagagag ttccgaactg gaagtggagc atggagagaa agtgccttct 240
 gtggagcaaa tccctgagcc agagagttct gacttagaaa tggccaatca ttctgttgaa 300
 caacaaaaag ttccagcgga tgtattcctg actgcagctg atgccccaat actcccttcc 360
 tcgcccacac caaatataca gaaggaaaat gagcaggaag cacctaagga gccagagcat 420
 ggtacactcg ag 432

<210> 2052

<211> 364

<212> DNA

<213> Xenopus sp.

<400> 2052

gaattcccat agcaacaaac agtaagcaat tgaataattt gcattcagta agataactta 60
 ttaaatggtt acctcccttc taatgacaca aggcattgcta aatatcagat ccctcgccag 120
 gatgagatag aatgttagtc gcatatttac acaagggcaa aatcgaatcc taagttaact 180
 cagcagtgtg ggaacacaaa cgtagcagtt ctgttaaaaa actaattgac ctttcagtg 240
 acatcaanga caagttcact ttcctcctcc atctgaactg tgcattgtgt aatcaactgg 300
 aagtgcatt gcattgttga aacgggatag gaaccctcct ccaattgcac ggcaataact 360
 cgag 364

<210> 2053

<211> 393

<212> DNA

<213> Xenopus sp.

<400> 2053

gaattcccat agcaacaaac agtaagttta tggccacgtt ctattttatt ttgaaatga 60
 gacttgctgt tcagcattgc cagtataatc agaaagagga ctctgcagca atgttgaga 120
 tctacttacc tagacaacgt cattgagaag atttgtggac cagaatctgt ttttatgtct 180
 gctgacttga aatcccttcc ttataataat tggactgggt aggggtgttc ccagcaaagt 240
 actgtattat tgtgattgta acaccacaca gaagaacata taggattaag ctatttgcca 300
 gatgcacaag tagcattgct ccgcatgtgc tgattaggat atctgcataa aatgtgctc 360
 tgtgtatacc tcaataaatg ttcaaccctc gag 393

<210> 2054

<211> 332

<212> DNA

<213> Xenopus sp.

<400> 2054

gaattcccat agcaacaaac agtagcgcta aagcgacacg ataaacacag tgggagatac 60
 caagtccgta ggcacacagg cgccctgccc tctcactctc cagtggaaat atcgactact 120
 ccgcgcgtgt gttcctcgct ctgctgggtt tctctcaagc agcaaaccca tgctgttcaa 180
 atccctgtca aaaccaagggt gtatgcatga ctgttggtt tgaccgctat gaatgcgact 240
 gcacgagaac tggcttctat ggagaaaact gcaactaaac ggaattttta tcatgggtga 300
 ggctgaagct gaagccgacc ccgtactcg ag 332

<210> 2055

<211> 383

<212> DNA

<213> Xenopus sp.

<400> 2055

gaattcccat agcaacaaac agtagcactc tcaatctcat agtttttact tacaagggac 60
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 tgccagttca agtcttgaat cttttttcgt aacttttgaa gatctttctg cgcacagtca 180
 atcatatgaa ccaggttctc gttattggct ttccagacgt tgcagccgtg ctgggacatg 240
 aactccaagt tctctattct gacggcctgg tgtccagtt gggccatcga attattgaca 300
 cattctgcc aagccgtgat gtcattcctc tggccggatg agggggccgg taactcatac 360
 ctcttcacgc tgagaagctc gag 383

<210> 2056

<211> 324

<212> DNA

<213> *Xenopus sp.*

<400> 2056

gaattcccat agcaacaaac agtaaggaga aaccatcaca tctgtcctga aaaccgggaa 60
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 ctgatctcca agatatcggc agaagacgtt tgcgagagtg gcctctacac aaacagccgc 180
 aaatgctggt ccttgtgccc agcgggattc ggggtggtgg ttccctgagg agattcagat 240
 actaagtgtg aaccctgcat agagaactct actttctctg atgtcagaag cgccaaggca 300
 aagcggcagg cagtggttct cgag 324

<210> 2057

<211> 450

<212> DNA

<213> *Xenopus sp.*

<400> 2057

gaattcccat agcaacaaac agtacatgaa tcaaaattct aattcctgag aatgagacat 60
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 cagtgtattt tgtgccccta caaaagaatg cgttttcttt ctttattttt aggtattttat 180
 gagctgagtg atgggaactc aggatccctc tccaattcct ccaactcagt gttcagcgaa 240
 tgtttatcca gctgccactc cggcacctgc ttttgcaacc ccttggaacc atcattaaac 300
 ctcacagatg gtcaagcaaa gtctgcagac gactttcttg aatggctgga ctacagagaa 360
 agtcaacatg aaactggcac agttcgccgc tcttttctg caccacattc caactctgtc 420
 gacattgggg cagatgtgca tccctcgag 450

<210> 2058

<211> 494

<212> DNA

<213> *Xenopus sp.*

<400> 2058

gaattcccat agcaacaaag agtacaactg cagagaaaat gaagctgctt cgagcttgcc 60
 tgctcctgat ccttttttat tttatctgca ttacagattg tgetacattc agatttgcat 120
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 atggagaagt tggggcttct gtcacagtct ctctttataa aggacctgag accattttta 240
 aaaaagtctgt tggcataaat gacgatgcag gtgtctggaa agtactgctg gatcctgttg 300
 atcatggagg accctactgg ttacttgctc agcaacatta ccagaaagac attactgatt 360
 tggccctgca cgacattttg tttggtgatg tttggctttg tgggtggcag agcaacatgg 420
 agatgactgt ttcacaggta tttaacgctg gtaaagaact ggcaaaagct gctgattatc 480
 ccaaccttct cgag 494

<210> 2059

<211> 141

<212> DNA

<213> *Xenopus sp.*

<400> 2059

gaattcccat agcaacaaac agtaccata gcaacaaaca gtaggcagct tccttgtctg 60
 aggagttggc tagtttgtta aatccacagc caaattttac ggatcccag gacgatcagg 120

atgaagccac tgttgctcga g

141

<210> 2060

<211> 549

<212> DNA

<213> *Xenopus* sp.

<400> 2060

gaattcccat agcaacaaac agtacttccc atagcaacaa acagtaattc ccatagcaac 60
aaacagtacc catagcaaca aacagtaccc atagcaacaa cagtaattta ctgtccctagt 120
agctgcatta gactgtaact tatttgcccc gtctcctaga gaagttaata tatgtccctc 180
ggacacgtga ccacgatttg cactagtgtt cattccggct tgtgaattgc tctgtggaag 240
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tgaatggggg gcaactaacc accaacactt ctatttgcta aactaagctg caaaccaga 360
gagcaccccc tcacctcttg tgagtggaca gaaatcttta tttgggggtc taaattgccc 420
cgttgacccc ccaaactttt accattgatc tcttttaact gtgtcgttaag taccaccaat 480
tgcccccttc tccccaaaag agatcagaga gaaatgccct ttcctaaaat ctccagcctc 540
atgctcga g 549

<210> 2061

<211> 410

<212> DNA

<213> *Xenopus* sp.

<400> 2061

gaattcccat agcaacaaac agtaggggtt tcatcatctt acaacagtac aaacaagggt 60
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agacgcttgg gatccacttt cagcagcagc tcatgtggga gtgtggacta ctctggagaa 180
gtcatccctc accacccagg tctcccgaaa gctgatcctg gtcaactgtg ggccagcttc 240
ttttttggaa aatccaccga tctgtcatg acaaccgttt cagaatcccc agagaactca 300
ggaagtcttc gtatcaccaa tggactgggt ccatgtggcc tgactcaaga gtctgtgcag 360
aagcaaaaag tcagtgaact caagtctaac tccagccccc ctgcctcgag 410

<210> 2062

<211> 433

<212> DNA

<213> *Xenopus* sp.

<400> 2062

gaattcccat agcaacaaac agtacagcat gttgcagtgg aagaaaaaaa tcttgaaaag 60
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tggaactgtt actcaggacc agcaaaagga ttctgggtct cagatgttaa gtaatcaaaa 180
aagggacact taccatgccc cagatgggtt ctgggaaatc aaatccaaac ttggtcctac 240
aaaagcaata ccgaaaacag aattgcagcc aacagagtgg gatatttact ctactaactg 300
ttctgccaac tgggaatatta ccaaaatgga atggtataaa tcattggaac cacatttcca 360
acagttcatt ctctaccgac actgccgcta ctttctctatg attattaaca accagcagaa 420
atgcagcctc gag 433

<210> 2063

<211> 378

<212> DNA

<213> *Xenopus* sp.

<400> 2063

gaattcccat agcaacaaac agtactcatt attcgtcttt atcggaggag ccgggggtcg 60
cggctactgt gtggtttcgg agaagggaca ggtataggga cagatataag gacaggtgta 120
gggtttccag gtgaaactag agccggagtt tcgtccttgg ttgagattga aggaggggce 180
gtccgaccgg tctgacctgc tggggaagag gataaagaat cggccgagga agcgattatt 240
attattatta agtcggacag tcgcaagact ttgggttccg tctgttggag gatgaagttc 300
gtgtcgggtc tgagattggg ggcagcgcta atgtgtctcg tcctgggtgac acgagcccg 360

aatccaggag cgctcgag

378

<210> 2064

<211> 280

<212> DNA

<213> Xenopus sp.

<400> 2064

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gaattcccat agcaacaaac agtaaatctt tgcaagtggg ggaccacaag cgttggtaaa 60
tatcatgagg acttacagtt atgagaaact tctgtggacc acaagtcggg tgcttaagg 120
getatccgtg tgctctagca acaagcctgc tatagttgaa gctggtggaa tgcaagcttt 180
aggactccat ctacacagact caagccaacg tttggttcag aattgtcttt ggacactaag 240
aaacctttca gatgcagcaa ctaaacagga ggctctcgag 280

```

<210> 2065

<211> 316

<212> DNA

<213> Xenopus sp.

<400> 2065

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gaattcccat agcaacaaac agtactgtgt gtgggtccgg agagctgcag ggtcaagagg 60
ggtgtccggc ggcctgctgg tgaacttggc caacatgagg aagttttggg caatcgggtct 120
ttgttgtata ttattggctt ttgcctctgt tcaagctgaa gatgaagttg aagtggatgc 180
tactgtagaa gatgacattg gaaaaagtag ggaaggatct agaacagatg atgaagttgt 240
aagcagggaa gaggaagcaa ccagttaga tggcctcaat gctgctcaaa ttaaagaaat 300
acgggagggg ctcgag 316

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<210> 2066

<211> 333

<212> DNA

<213> Xenopus sp.

<400> 2066

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gaattcccat agcaacaaac agtacacacc agcaacacca tggagatagg agccatcttt 60
gggttgggac ttgcatatgc tggttcaaat cgtgaggatg ttctgaccct cttgcttcca 120
gtgatggggg atttaaagtc cagtatggag gttgttggag tgacagccct tgcctgtggg 180
atgatagctg tcggatcctg taatgtgggc gttacatcca caattctaca aactatcatg 240
gagaaatctg aacaggagct aaaagatata tttgctcgtt ggttgccact tggcctaggg 300
ctgaatcaat tggggaaggg tgaagcaccc gag 333

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<210> 2067

<211> 313

<212> DNA

<213> Xenopus sp.

<400> 2067

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gaattcggac tactacaggt ggggcagaga aaatccgcc a tgaaggacgg aaaagggaca 60
gggaaagcga agaagcattg gagaccgtac aagcaaagtg tgatggcagg cagtcagaag 120
gaaggaaaag ggttttcttt gtggagaaaa caaaagatcc agctggaata taaaaaacta 180
ctaaggaaac aaaagaagcc cagtactgtt aatgaagatc tctacaaaga caattaccct 240
gaacacttga agcacctgta cctagctgaa gaagaaatgc tgaaaaagaa agaagaaagt 300
aggaaacctc gag 313

```

<210> 2068

<211> 412

<212> DNA

<213> Xenopus sp.

<400> 2068

```

gaattcggac tactacaggt gattcacctt cgggcagcac gacatgccc aactccggcg 60

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ggaagatcta caaggagctg tgcactgca agctggcggg gtgaggccac gcgtcttcta 120
 acgtgagaca aacgtgtgca tccaacgtgc gccattattg taggggaccc tgcggagact 180
 ttttacttgc ggtggtggcc tctccggggg ctgcgtgat catcgtcttt gcccttccc 240
 ggtggaccgt actacctgtt tacccagtg ggtgcctcgc ccaccgtac attgaaggat 300
 tctgtggatc aattccaggg gggagtcctt gctgcgcgtt ttcgttgtg gatcgtcttt 360
 cctcgtcctt cgtgtcccggt gccctctcca caatccccc ccaaaactcg ag 412

<210> 2069

<211> 310

<212> DNA

<213> *Xenopus* sp.

<400> 2069

gaattcggac tactacaggt gaccccaacc tgcgtttaac cctctttttg ccagttgttc 60
 aacaagctgg gaaagagtgt ttaaatcagt ctgtagcatg gaaagctgt gaaactgtac 120
 agttaagatt atgtatttgc cttaattttg gactgttccc ccccccccc agtttgcctg 180
 ttatcatctg tgtctgagct gcctctgtaa tatggtctgc tccaaacct gggactctgc 240
 agtgatttag aataccttac ccccttcctt tgttaggtct tgattttaaa taaagaacca 300
 agtgctcgag 310

<210> 2070

<211> 315

<212> DNA

<213> *Xenopus* sp.

<400> 2070

gaattcggac tactacaggt ggaattcctg agtttctactg agcgtaccc gagcatcgtc 60
 tacaatatcc tctcttccag ctgactagt gccctgggac agacctttat cttcatgacg 120
 gtggtatatt tcggcccgtt tacttgctct ataatcagca caactcggaa attcttcatc 180
 atcctggcct ctgttatact gttttcta atccgacagca gcattccagt ggtagggacc 240
 atcctggtgt ttttaggtct gggactggat gcaacgtatg gaaaggatc caagaaccg 300
 cccactgcc tcgag 315

<210> 2071

<211> 345

<212> DNA

<213> *Xenopus* sp.

<400> 2071

gaattcggac tactacaggt gcatcaacaa gaattggaaa gtccgaggcc aggttctttc 60
 atgtggcctt tgaggaggag tttggggag ttaaagggtca ttttgggcct attaacagtt 120
 tggcattcca tccaaatgga aagagttaca gcagtggagg agaggatgga tacgttagaa 180
 tacattactt tgactcgcaa tatttcgact ttgaatttga atcctgagac agttgcttca 240
 tgcttggtta tatcctactt aatttgcgt cacacacaca atttaattga ttgctcaatt 300
 acatcatgca gattgtatc ttttacaata aatggaaacc tcgag 345

<210> 2072

<211> 310

<212> DNA

<213> *Xenopus* sp.

<400> 2072

gaattcggac tactacaggt gttactttcc agggaaaaat taaacaatgt cttactcat 60
 tagagtagtt gctgtgcaga ttcttcccag ttgcctctgt gtttagggag acattgtaac 120
 actacaaaaa tgcataatac actacttttc ttttctcac tgactctgtt cttactttg 180
 aatagaaatc tcaggcactt ggacactatc tggectatac cagcatcatt catatacctt 240
 tccttctgct tgaaccctt tacaagtgt ggaatcctga cgtttttctc tttttggctg 300
 gagactcgag 310

<210> 2073

<211> 320

<212> DNA

<213> *Xenopus* sp.

<400> 2073

```

gaattggact actacaggtg aaaatacaga gtggctttga ggattgcaaa ggacccatca 60
tttgaacggc tgccttgtct tcacctgga acctatgcag atgactgcct tgtacaaaga 120
gttactcagc acaaagtgtt tattgtggct acagtggaca gagacctgaa aagaagaatt 180
cggaaaatcc ctggtgttcc catcatgtac atctcaaacc acagatataa tattgaacga 240
atgccagatg actatggagc tcctcgtttt taagatttgt ttgttcggca ttcaaacctt 300
tattataatg tggactcgag                                     320

```

<210> 2074

<211> 406

<212> DNA

<213> *Xenopus* sp.

<400> 2074

```

gaattcggac tactacaggt ggtgacactg tatgtgacag aggaaacttg cagtgggcaa 60
atatcaatac gtttccccc aaataggaac attatcattc ccattggata aatctgccac 120
taagtgtttg ggaatcaaga gaccagaga caatagagag cccaaggcat tctaattctt 180
gttaaactac aactaacctc acttatttgt atagacattg gctttatcca ataacagtgc 240
taagactccc attgccattg tactttctct gcacaagtat cctggaagtc ttcccttaaa 300
ctttgcctta attcagagtt tccatgtggg tagtgtattc tgaacctttg ctgtatgttt 360
ttgagggcca aatcattctg atgtatactg caatgtgtac ctcgag                                     406

```

<210> 2075

<211> 382

<212> DNA

<213> *Xenopus* sp.

<400> 2075

```

gaattcggac tactacaggt gcaagcacag gaaacaagag tacgaaaaga taagtgaana 60
gaagatgtcc actccagttg aggtgttgtg taagggtttt cctgcagaat ttgcaatgta 120
tctgaactac tgcgcgggct tacgatttga agaggcaccg gactacatgt atctgcgaca 180
actattccgt attctgttca gaacattaaa ccaccagtac gactacacat ttgactggac 240
aatgttaaaag cagaaggcag ctccagcaagc agcctcctcc agtgggcagg gccagcaagc 300
ccaaaccccc acaggatttt gaacatgaaa ggagcagaga tcacagacca ggctggagct 360
ggacctgtca ctccctctcg ag                                     382

```

<210> 2076

<211> 615

<212> DNA

<213> *Xenopus* sp.

<400> 2076

```

gaattcggac tactacaggt gatcaggagt cggatttagt tgcctaggca caaggattcg 60
gtggaatcca aatcctgctg gaaaaaggct gaatcctaaa cagaaattct ggattcgggtg 120
catccctagt tttttaataa accgggacca attgctctag aaatacagtc tatgaactag 180
gtcatttacc tttccctctt gtaggaaagg acttggtgtt ggagcaccgc gtatgaattt 240
ttgcgtctcg gcttattagg attatttcta ctgttccttg gatgttcggg gtcgtgatgc 300
ctttgccgag acctgttaat tctctgtatg ttcctcgtct acttctcttt cgtectacaa 360
aacctgcaat gcttttgtct gaattctgtg ttgttttttt taaagtttgt ttctgtgaga 420
agtttgtatt tggtaattct tagatatgtg ttaatgtttt actctgagtg gtgtgcacct 480
ttatattcat tccatgcaat ctttcattta gtcccccttg ctttccaggc aggattccga 540
cacgttacaa acctttccat ttggagacct ctctggggaa taaacgggtt caaataacca 600
cttcaacggc tcgag                                     615

```

<210> 2077

<211> 397

<212> DNA

<213> *Xenopus* sp.

<400> 2077

gaattcggac tactacaggt gacgagacg aatcggaat gctgaatcct tccaatttat 60
ttcaccacac cgtgtcaaat aattttgtgg atatttcaaa aggtctcccc atgtctttgt 120
atggggggcac agtgatccct tcacatacac aatgtcggg cgctcctgat tgtcccgat 180
ttaatggagt taccacacaa gatgctgctg ctgctgctac ttggagtcca atgattaagg 240
tggtgcccag ttcaqtcgaa tgtacggatg cccagaagat gtggccagga acctggacac 300
cccatattgg aatgtgcat ttaaagtacg ttaactgaat tagaggaaac cgttcaacac 360
aaaactgaaa tacttgagcg cactgggggtg actcgag 397

<210> 2078

<211> 410

<212> DNA

<213> *Xenopus* sp.

<400> 2078

gaattcggac tactacaggt gaccaccagg ccgctgctcc aaccacttgc aggagaagat 60
tcaaaagtgt tatgagaaga agttaaaga agggacagac atgaaccgca ttatccaaaa 120
aaagaaagaa ttctggaacc ccagcatcta cgagaagctc atccagtttt gctccattga 180
tgaacttggc actaattacc ctaaagacat gtttgacca catggatggg ctgaagattc 240
ctactatgag tctcttgcta aagoccaaaa gattgagatg gataagctgg aaaaggccaa 300
aaaagaacga acgaagattg agtttggtac aggcactaag aagggcacaa cgaccagtgc 360
aaccacaggc acaaccagta ccacaaccac atctacagca gatggtcgag 410

<210> 2079

<211> 517

<212> DNA

<213> *Xenopus* sp.

<400> 2079

gaattcggac tactacaggt ggaacccctc ctgttgctct tatataacct ccgtcttgtc 60
agtcgtgtgc aaacgctttt cctgtgcccag tctgtttttt tcatactttt taagacccca 120
gctgatctgt atgcatagca ccaggacctg gcagacatat tggaaactat tggcattatg 180
atcttttttt ttttttaaat ggggaggtcc gtctccttgg ttgttattgt cagcacccta 240
aatgccaaca ttttaacaggg cagagcagag ttttgtgtgt ttttgggggt cggtagcctg 300
gcgagtctct tgtttttccc gcaagggggc atcgggtggc acatattggc agtactccat 360
gccactgatg ttcaacctgt ggtccgcaag cctttgttga actttgtagt tcaataaacc 420
cagtcggggg agtcaaaccc tacacttcag ttgatgcacc cacttttatt aatgacaccc 480
tgaggctaaa gtgttacgtt aaaggggaccg gctcgag 517

<210> 2080

<211> 371

<212> DNA

<213> *Xenopus* sp.

<400> 2080

gaattcggac tactacaggt gttagaggga ggcctaggcc tgtgctatca cccgaacctc 60
aaggctcctag tctgagtgat agcccagaac cttgtgatag cactgagtga cactacagg 120
caactactaca gggcagctgg gaactgaaat accccattac tgccaacatt ccattccac 180
aagcaagaa atagccagaa agcagaaaag aaagttagga atttgatcag agtgttgagt 240
tctctataaa tggaaaggtaa aagaaaggca ttggattgga ttgggcagca gagagatatg 300
aaggaaaggt caggttagtt agcagggggc ggtaaaggag tttgaattgt ttgacatggt 360
aagagctcga g 371

<210> 2081

<211> 687

<212> DNA

<213> *Xenopus* sp.

<400> 2081

```

gaattcggac tactacaggt ggtgagaagc agtagatctc aggggagtct tgcaacaatg 60
tggcatcttg tagttgcact ctgcttcctg gcctccatcg ccaattcccg ccactctccc 120
tactttgccc ccttgctgca cgatatggtg aattatatca acaagggtcaa cactacatgg 180
aaggctgggc acaactttgc taatgctgat gtacactatg tgaacggct ctgtggaaca 240
caccttaatg gccccagct tcaaaagagg tttgggttg ctgatgacct agaccttcca 300
gacagctttg attccccggc agcttgggcc aactgtccca ccatccggga gatccgagat 360
cagggatcat ggggctcttg ctgggcgttt ggtgcggttg aagccatctc tgatcggtt 420
tgtgttcaca ccaatgggaa ggtgaacgtg gaggtgtctg ctgaagatct cctgtcctgc 480
tgtggcttta aatgtggcat gggctgtaat ggagggtatc catctggagc ctggcgattc 540
tggactgaga cgggtttggt ttccgggggc ttgtatgact cccatgttgg ctgcaggccg 600
tactctatcc ctccctgcga gcaccatgtg aatggctcca ggccgtcctg caagggggaa 660
gagggcgata ccccaaagtg cctcgag 687

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<210> 2082

<211> 602

<212> DNA

<213> *Xenopus* sp.

<400> 2082

```

gaattcggac tactacaggt gctactgaga ggaggaagat gcagctcgtt acagctctga 60
ggctcggggc agcgttaatg tgctcgtcc tgggtggcga agtccagagt caaggatgca 120
aatgtagaac gcactacatg ggtaaatgctg ataacagcgg tgcatcttca gattgtcagt 180
gtaccctcac catagggccc gattcccaac ctgtgaaactg ctcaaaatta attcctaaat 240
gttggctgat gaagagagag agccttggga caaaggcagg tcgcagagtt aaaccagcac 300
aagcacttat tgacaacgat ggactgtaça atccagagtg tgatactaata ggggtgttta 360
aggcccgcca gtgcaacaat actgacacct gctggtgtgt caataccgcc ggggtcagaa 420
gaaccgacaa aggggacaaa aactggaagt gcccgagct ggtcagaact aactgggtgt 480
atgttgaaat gaaacgcaat aacacagact cagtgaatga tgacgacttg aaaaaagcāc 540
ttaaacaac aatagtgaat cgatatggat tacctgaaa atgtgtttct gttgagctcg 600
ag 602

```

<210> 2083

<211> 425

<212> DNA

<213> *Xenopus* sp.

<400> 2083

```

gaattcggac tactacaggt gggaaacagc gactctggtt gtagacgaga cggcgcggtat 60
attgcaagat gatcatcccc gtcagatgct ttacatgtgg gaagattgta ggcaataaat 120
gggaggctta ccttggcctt ttacaggctg aatatacaga aggtgatgct ctggatgcct 180
tgggcctgaa aaggtaactg tgctcctcgc tgctcctcgc tcacgtcgac ttgattgaga 240
aactgttaaa ctacgcccc ttggagaaat gagggctcgg ttccatccgg tgcaatctag 300
accaatcaaa tgtttacaag cacaggaagg agaaccoccg gcttccatta taccctacct 360
gctgaacttc cagaggaaaa atctgtttct aacctgaaa ccatgttgaa cagggcatgc 420
tcgag 425

```

<210> 2084

<211> 498

<212> DNA

<213> *Xenopus* sp.

<400> 2084

```

gaattcggac tactacaggt gccgggagga gatattctta caggagatgg aggagcagaa 60
agaaaatcgg ccgctcgata cagaggattc ggtggttgag gaggatttgt gcaaaaagct 120
ctcaagaaac ttggatctcg ttggtgtcaa gcagagggtg cgatttgatg gtcaggagga 180
caatggaact tctacagtat cctcaaatac tagtgatttc agtgatccag ttataaaga 240
aattgccatt gctaattggt gtgtcaatag agtgacaaag gatgagotga aggcgaagct 300
tgtagagcac aaacttgaca ctgaggtgtg taaagatgtg ctgagaaaga gactgaagaa 360
ctactacaag aagcagaat tgacacatgc attgcataag gactcaaca cagactgcta 420

```

ttatgactac atctgtgtca ttgactttga agcaacctgt gaagcgggta actctctaga 480
ctacccccat ttctcgag 498

<210> 2085
<211> 306
<212> DNA
<213> *Xenopus* sp.

<400> 2085
gaattcggac tactacaggt gtttatgatg aaaaagtagt ccattcccttg acttaataat 60
tgtttggtcc acttccctgc tcctgtctgc atgtgggtgca caggcactgt atgtaactca 120
agctcatcta tcaatctgcc atttatgctg ccctaataca cttttcttct ccttctttta 180
gcaaatataaa ctgaggggat ctccctcag cctgtgcag agctaggtgt ccaaagccct 240
gcaaaagtgc taactccttc cctgccttg ccaaccttg agcctgttcc ttctgccccg 300
ctcgag 306

<210> 2086
<211> 385
<212> DNA
<213> *Xenopus* sp.

<400> 2086
gaattcggac tactacaggt gtttcgcttt tctttactgc atggctgctc ttgcatttta 60
tctaggttta atgcacttgt atcgggactc tccaaaattt ccattatgtg acttcttcat 120
tgctgttgcc ttgtctttaa tgtggctagt tagttcctca gcttgggcta aaggtttgac 180
agatattaaa atttccacca gccctcaca ttttgtgcaa aatcactgcc cactgaatta 240
caaatgtctg cctggacaag aatcgcccat gggaggtctg aacatctctg tggcttttgg 300
atttttgaat ctgattctgt gggcaggtaa tgcttggttt gtatacaagg agaccagtct 360
acattcccca ccgcaacaac tcgag 385

<210> 2087
<211> 198
<212> DNA
<213> *Rattus* sp.

<400> 2087
gaattcggcc aaagaggcct agaactctgg actctgggaa aagcattgac catgaggttg 60
accctgttat tggctgccct acttgggtat atctactgtc aagaaacgtt tggggagat 120
caagtcttg agatcatccc aagtcatgaa gagcaaatta gaactctgct gcaattggag 180
gtggaagagc atctcgag 198

<210> 2088
<211> 176
<212> DNA
<213> *Rattus* sp.

<400> 2088
gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
gttcaagacc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2089
<211> 323
<212> DNA
<213> *Rattus* sp.

<400> 2089
gaattcggcc aaagaggcct agcaaatga agtttgttct gctgctttcc ctcattgggt 60
tctgtgggc tcaatatgac ccacacactg cggatgggag gactgtatt gtccacctgt 120
tcgagtggcg ctgggctgat attgccaaag aatgtgagcg gtacttagca cctaagggat 180

ttggaggggt gcagggtctct ccacccaatg aaaatattat aattaataat ccatcaagggc 240
 cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggtct ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2090
 <211> 176
 <212> DNA
 <213> Rattus sp.

<400> 2090
 gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2091
 <211> 176
 <212> DNA
 <213> Rattus sp.

<400> 2091
 gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2092
 <211> 346
 <212> DNA
 <213> Rattus sp.

<400> 2092
 gaaattcggc caaagaggcc tacttggtag attatccaaa catcgtaaaa ttttcatgct 60
 atttatttta tttttttttt tttttttttt ttgccaaaag atgagttgtg tttgtttgaa 120
 atctgagaca ctgtgttcca tttggtgttt ctgttcaaat gcatectcat tgtcctggaa 180
 acccttcccc agatgtcaca ctacatgtca ggtccaggag gatgactcgc aagtcctaca 240
 gggttcatta cgaaaacttc aagggtccca gtggaaacct ggaaaccgtc agctgatgct 300
 caccaaagtc tcgcccttca cccctgcggg ggcctggcag ctcgag 346

<210> 2093
 <211> 176
 <212> DNA
 <213> Rattus sp.

<400> 2093
 gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2094
 <211> 323
 <212> DNA
 <213> Rattus sp.

<400> 2094
 gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcattgggt 60
 tctgctgggc tcaatatgac ccacacactg cggatgggag gactgetatt gtccacctgt 120
 tcgagtggcg ctgggctgat attgccaaag aatgtgagcg gtacttagca cctaagggat 180
 ttggaggggt gcagggtctct ccacccaatg aaaatattat aattaataat ccatcaagggc 240
 cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggtct ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2095

<211> 176
 <212> DNA
 <213> Rattus sp.

<400> 2095

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt cggaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2096
 <211> 176
 <212> DNA
 <213> Rattus sp.

<400> 2096

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt cggaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2097
 <211> 150
 <212> DNA
 <213> Rattus sp.

<400> 2097

gaattcggcc aaagaggcct accccccaat agaaaaattg ttatgggtat tggcatttat 60
 ttattcatca tatacttatt agggcageta aaaaagteta atgectctgt catgtattac 120
 cacagaagggc aagcccagca caaactcgag 150

<210> 2098
 <211> 323
 <212> DNA
 <213> Rattus sp.

<400> 2098

gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcattgggt 60
 tctgctgggc tcaatatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
 tctgagtggtg ctgggctgat attgccaggg aatgtgagcg gtacttagca cctaagggat 180
 ttggaggggt gcaggtctct ccacccaatg aaaatattat aattaataat ccatcaaggc 240
 cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggtct ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2099
 <211> 178
 <212> DNA
 <213> Rattus sp.

<400> 2099

gaattcggcc aaagaggcct aagcattgac catgaggttg accctgttat tggctgccct 60
 acttgggtat atctactgtc aagaaacgtt tgtgggagat caagttcttg agatcatccc 120
 aagtcattgaa gagcaaatga gaactctgct gcaattggag gctgaagagc atctcgag 178

<210> 2100
 <211> 344
 <212> DNA
 <213> Rattus sp.

<400> 2100

gaattcggcc aaagaggcct acttggtaga ttatccaaac atcgtaaat tttcatgcta 60
 tttattttat tttttttttt tttttttttt gccaaaagat gagctgtgtt tgtttgaaat 120

ctgagacact gtgttccaat tgggtgtttct gttcaaaagc atcctcattg tcctggaaac 180
 ccttccccag atgtcacact acatgtcagg tccaggagga tgactcgcaa gtcctacagg 240
 tttcattacg aaaacttcaa ggttcccagt ggaacctgg aaaccgtcag ctgatgtca 300
 ccaaatgtc gcccttcacc cctgcggggg cctggcagct cgag 344

<210> 2101

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2101

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatataa ttggggctgg cttatagatt cggaggttct agcagaactt gccctcatca 120
 gttcaaaagg tgaattgttt cctcatacac taggtactgc gtcaacatac ctcgag 176

<210> 2102

<211> 330

<212> DNA

<213> Rattus sp.

<400> 2102

gaattcggcc aaagaggcct aaaaatgaag tttgttctgc tgetttccct cattgggttc 60
 tgctgggctc aatatgaccc acacactgcg gatgggagga ctgctattgt ccacctgttc 120
 gagtggcgct gggctgatat tgccaaggaa tgtgagcggt acttagcacc taagggattt 180
 ggaggggtgc aggtctctcc acccaatgaa aatattataa ttaafaatcc atcaaggcct 240
 tgggtgggaaa gatatacaacc aatcagctac aaaatttgct caaggctctg aaatgaaat 300
 gaattcaaaag acatggtgac gagactcgag 330

<210> 2103

<211> 523

<212> DNA

<213> Rattus sp.

<400> 2103

gaattcggcc aaagaggcct aaacaattct gcaaaaataa tcatacccag cctggcaatt 60
 gtctgtcctt cgggtccattg ctccgccgcc gtccacagtc gcttgcaagg gaaggcactg 120
 aatttaccgc ggccagaaca tccctcccag ccggcagttt acaatgctgc gaactaagga 180
 tctcatctgg actttgtttt tectgggaac tgcagtttcc ctgcaggtag atattgttcc 240
 cagccaagga gaaatcagcg ttggagagtc caaattcttc ctgtgtcaag tggcaggaga 300
 tgccaaagat aaggacatct cctggttctc cccaacggg gagnaactga gcccaaacca 360
 gcagcggatc tcagtgtgtt ggaacgatga tgactctct accctcacca tctacaacgc 420
 caacattgat gatgccggca tttacaagtg cgtgggtcac gctgaagacg gcaccagtc 480
 cgaggccact gtcaatgtga agatcttcca gaagacactc gag 523

<210> 2104

<211> 150

<212> DNA

<213> Rattus sp.

<400> 2104

gaattcggcc aaagaggcct acccccact agaaaaattg ttatgggtat tggcatttat 60
 ttattcatca tatacttatt agggcagcca aaaaagtcta atgcctctgt catgtattac 120
 cacagaaggc aagcccagca caaactcgag 150

<210> 2105

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2105

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2106

<211> 345

<212> DNA

<213> Rattus sp.

<400> 2106

gaattcggcc aaagaggcct acttggtaga ttatccaaac atcgtcaaatt tttcatgcta 60
 tttattttat ttcttttttt tttttttttt tgccaaaaga tgagttgtgt ttgtttgaaa 120
 tctgagacac tgtgttccat ttggtgtttc tgttcaaatg catcctcatt gtcctggaaa 180
 ccttcccca gartgcacac tacatgtcag gtccaggagg atgactcgca agtccctacag 240
 gtttcattac gaaaacttca aggttcccag tggaaacctg gaaaccgtca gctgatgctc 300
 accaaatgct cgcccttcac ccttgctggg gcctggcagc tcgag 345

<210> 2107

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2107

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2108

<211> 176

<212> DNA

<213> Rattus sp.

<400> 2108

gaattcggcc aaagaggcct attataagag ttgctttggt catggtttct cttataagga 60
 caatatttaa ttggggctgg cttatagatt ccgaggttct agcagaactt gccctcatca 120
 gttcaaagcc tgaattgttt cctcatcac taggtactgc gtcaacatac ctcgag 176

<210> 2109

<211> 203

<212> DNA

<213> Rattus sp.

<400> 2109

gaattcggcc aaagaggcct agctctgaac tctggactct gggaaaagca ttgaccatga 60
 ggttgacctt gttattggct gccctacttg ggtatatcta ctgtcaagaa acgtttgtgg 120
 gagatcaagt tcttgagatc atcccaagtc atgaagagca aattagaact ctgctgcaat 180
 tggaggctga agagcatctc gag 203

<210> 2110

<211> 323

<212> DNA

<213> Rattus sp.

<400> 2110

gaattcggcc aaagaggcct agcaaatga agtttgttct gctgctttcc ctcattgggt 60
 cctgctggc tcaatatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
 tctgagtggc ctgggtgat attgccagg aatgtgagcg gtacttagca cctaaggat 180
 ttggaggggt gcaggtctct ccaccaatg aaaatattat aattaataat ccatcaaggc 240
 cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaaggctt ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2111
 <211> 308
 <212> DNA
 <213> Rattus sp.

<400> 2111
 gaattcggcc aaagaggcct acctttcttt cctcccttcc tcttcccatg tccctctctc 60
 ctccctccca cctctcacc ttctccatcc cctctccctc ttttttttg tactttccag 120
 ctggagcagc agcagcagct gggcctgaat caatgattga cttccccacg acctccctt 180
 ctcttttgcc aatgatatct ctttgccctt ccagtcactt ttaatttta tctgtgatgg 240
 ttttgcttct ctttctctct cctcctctct tccctcttcc tccccctct cccccaccg 300
 cagtcgag 308

<210> 2112
 <211> 203
 <212> DNA
 <213> Rattus sp.

<400> 2112
 gaattcggcc aaagaggcct agctctgaac tctggactct gggaaaagca ttgaccatga 60
 ggttgaccct gttattggct gccctacttg ggtatatcta ctgtcaagaa acgtttgtgg 120
 gagatcaagt tcttgagatc atcccaagtc atgaagagca aattagaact ctgttgcaat 180
 tggaggctga agagcatctc gag 203

<210> 2113
 <211> 402
 <212> DNA
 <213> Rattus sp.

<400> 2113
 gaattcgtcc aaagaggcct acactgacaa cttcaagca aaatgaagtt cgttctgctg 60
 ctttccctca ttgggttctg ctgggctcaa tatgaccac acactgcgga tgggaggact 120
 gctattgtcc acctgttcga gtggcgctgg gctgatattg ccaaggaatg tgagcggta 180
 ttagcaccta agggatttgc aggggtgcag gtctctccac ccaatgaaa tattataatt 240
 aataatccat caaggccttg gtgggaaaga tateaacca tcagctacaa aatttgctca 300
 aggtctggaa atgaaaatga attcaagac atggtgacga ggtgcaacaa tgttggtgtc 360
 cggatttatg tggatgctgt cattaatcac atgacactg ag 402

<210> 2114
 <211> 545
 <212> DNA
 <213> Rattus sp.

<400> 2114
 gaattcggcc aaagaggcct aggggtcggc agaaggcttc aggtcccttg aacttggggt 60
 tactggtgac gggcactgcc atgtggatgc cgggggctgg acctggacta tcgggaagag 120
 caggcactgc tggctgctga gtcattgctc tcacctgct tgetettgag acaggacct 180
 gcttcgcaat aggccaggtt ggtcttgacc gtattacgta gtccaggta acctgaact 240
 caaactcctc ttatgtctcg ggtcccaaaa ggtgggaatt ttccgtgtgg gacgccatgc 300
 cgggtactct gtgctctagg attttatctt gttttattcc attgcattgc tgggccttga 360
 ggatgctctg atctgtgata gcatattgga cctcctgctg ttgtctaagg atacagtgc 420
 cattcacggc cctgcagtc ttccaagact ctcttcaaag gacaattgtg ggcttccaaa 480
 acaatcttag tgcccgctgc ttctccatta ccatagccaa cactttctca cccacaaaac 540
 tcgag 545

<210> 2115
 <211> 427
 <212> DNA
 <213> Rattus sp.

<400> 2115
 gaattcggcc aaagaggcct agagcttttc ggtgtatgta cctggagggt caagattatg 60
 caggatttcc tgggttggtt ttactccgac tgcatagcac ctacagacac gacctcaaaa 120
 tatatgcctc tgatgaaggc cgggtccaga tgacggcagc tgcottcgca aagggtctct 180
 tggtcttaga aggagagctt acccccattc tgggttcagat ggtgaaaagt gcaaatatga 240
 acggcctttt ggacagcgac agtgactctt tgagttagctg tcagcagcgt gtgaaagcga 300
 ggcttcataga gatacttcag aaagacagag attttacagc cgaagactac gagaagctta 360
 ctccatctgg aagcatttct gttatcaaat caatgcatct aattaaaaac ccagtgaana 420
 cctcgag 427

<210> 2116
 <211> 178
 <212> DNA
 <213> Rattus sp.

<400> 2116
 gaattcggcc aaagaggcct aagcattgac catgagggtg accctgttat tggtcgccct 60
 acttgggtat atctactgtc aagaaacgtt tgtgggagat caagttcttg agatcatccc 120
 aagtcataga gagcaaatga gaactctgct gcaattggag gctgaagagc atctcgag 178

<210> 2117
 <211> 314
 <212> DNA
 <213> Rattus sp.

<400> 2117
 gaattcggcc aaagaggcct actccacaact catcttttaa ttttgaaagc ctcagaacac 60
 ctggaccact tcttttgaaa actgtttctac cagcaacaag tcatccactg cgatcctgtt 120
 gagcatagcc acatctgagt ttccaagtc taaacaggac tgcctctgat tttcccatga 180
 agctgcatta ttgtctgtcc atcttactgg tggtcacttt tgtgccaact gctctggttt 240
 tggaagatgt gactccactg ggaacgaatc agagttcata caatgcatca tttctttcga 300
 gctttacact cgag 314

<210> 2118
 <211> 323
 <212> DNA
 <213> Rattus sp.

<400> 2118
 gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcattgggt 60
 tctgctgggc tcaatatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
 tcgagtggcg ctgggctgat attgccagg aatgtgagcg gtacttagca cctaagggat 180
 ttggaggggt gcaggtctct ccacccaatg aaaatattat aattaataat ccatcaaggc 240
 cttggtggga aagatatcaa ccaatcagct acaaaaattg ctcaaggctc ggaaatgaaa 300
 atgaattcaa aggatggctc gag 323

<210> 2119
 <211> 579
 <212> DNA
 <213> Rattus sp.

<400> 2119
 gaattcggcc aaagaggcct agagcaatgg tcaacacctt tctctgcctt ggggctgggc 60
 aaaccaacag tccaggcaaa aggcagggca ctttctggag gaggtgtcag caccaaggca 120
 gatggctgac tccaaagctc tccgtgctct cctgcattgg gcctaaatga tggcatgagc 180
 cggctcctct ggcctatctg ggttccaatc cttggttaga ttagtctgca ggggctgcat 240
 tgtaggcaga gctcaccaaa ccaagactta cacttctca gcccttgga gcacagctac 300
 aaaatcactg gacttcaaac cagaaaaccc agccttgaca cagtacagat gacaaccatc 360
 tggctcactt gaatgtaaag cgacccca caacttgca tttgtaggca gggacgctca 420
 cattgctcaa ggcttccttg gccggaatga agcaaacag agctcaaac aagcagagt 480

actccaagcc tgtccatagc caccactat gcttaagtaa gatgtcctcc ctcaaagctg 540
 ctgcagtaaa gccatgagca gattcctggt ctgctcgag 579

<210> 2120
 <211> 310
 <212> DNA
 <213> Rattus sp.

<400> 2120
 gaattcggcc aaagaggcct aagcttgggc gcagaacaca ctcaaagttc ccaaaggagc 60
 tccacctgtc taccctcctc ctgagctcag tcccacaagg cagaataaaa aaatgaagac 120
 cgtttacatc gtggctggat tgtttgtaat gctggtacaa ggcagctggc agcatgcccc 180
 tcaagacacg gaggagaacg ccagatcatt ccagcttcc cagacagaac cacttgaaga 240
 ccctaatacg ataaacgaag acaaacgcca ttcacagggc acattcacca gtgactacag 300
 cgcactcgag 310

<210> 2121
 <211> 354
 <212> DNA
 <213> Rattus sp.

<400> 2121
 gaattcggcc aaagaggcct agtggggtag gaactgaagg aaatatagga ccatgcaggg 60
 attttatctc aatgagagaa gttctgatta tattaggaat ccaccaaga ccatcattgt 120
 gactggatcc acacagctaa gtctttgttc agtgaacatg gtcagaaga ggctggaaa 180
 acccaaagca cacagttacc ttccatggg aggttaagct atcaaaagcg gtgttcagtt 240
 atacaacaag caagccaagc caccaaatta caaacagtgg tgttacatat ttctcgtgca 300
 atgtgggttt cctgctaaat ttgtttgttt ttacacttga tttatctcct cgag 354

<210> 2122
 <211> 435
 <212> DNA
 <213> Rattus sp.

<400> 2122
 gaattcggcc aaagaggcct ataaaattat taagtatata tccaaatttc aaactcctct 60
 tccccaaac aacgctggcg agcctagcaa gttagcaaaa atctttgtta agaatataga 120
 atagcgctca ccatagggtc tgtgttccaa agccacacct cagttccccc actatcagaa 180
 taccatacta gtggttctta actagtaaag gctaaagaga acctttactt tcccactatc 240
 ctgagcaacc taggtctttt actgtattca ccaatgcccc ttgtacatca gttttctctc 300
 catccttctt gcctaactgc ctctctttct tacttctttt tgtttcaaat ctctttctgt 360
 ttattttctt tgtgtctgtg gacattcact gggacgtggc atggcagatg tatggacaca 420
 acggggcgagc tcgag 435

<210> 2123
 <211> 339
 <212> DNA
 <213> Rattus sp.

<400> 2123
 gaattcgcca aagaggccta ccaaaagggc ctgctacatc ttaggaaggt agagaccctt 60
 ggtggcgccc cctttagaag agcagctgcg cagggtggg acattttaat gaaggctctg 120
 cattaaagag ttggtctttt ctttccttat ctttctctt atttggaat gtcctcctct 180
 aatctccctt aatccacccc cctccttgtg gggcagggga ccaggcagcc tggagaggcc 240
 aagagaggag ctgcaggatt ggggtgggca ctggcaggag actccacgt agccctgtgc 300
 atgggggtgt tgcataattg caggttaagag ccactcgag 339

<210> 2124
 <211> 323
 <212> DNA

<213> Rattus sp.

<220>

<221> unsure

<222> (114)

<220>

<221> unsure

<222> (120)

<220>

<221> unsure

<222> (191)

<400> 2124

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gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc ctcatggggt 60
tctgctgggc tcaatatgac ccacacactg cggatgggag gaactgctatt gtcnacctgn 120
tcgagtggcg ctgggctgat attgccaagg aatgtgagcg gtacttagca cctaagggat 180
ttggaggggg ncagggtctct ccacccaatg aaaatattat aattaataat ccatcaaggc 240
cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaagggtct ggaaatgaaa 300
atgaattcaa aggatggctc gag 323
```

<210> 2125

<211> 320

<212> DNA

<213> Rattus sp.

<400> 2125

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gaattcggcc aaagaggcct atgactatag ggaaagtcac atgggcatat acaagtgtca 60
aactcggaaa ctgcacgcca tgaacatgta taatttacca tatgtcaaag aagccatttt 120
tgggtttttg ggggtgggtt tgtgtgtttg tttgtttgtc ttttaaagtc tgttggccag 180
caagttggct cagtgggtaa aggtgtttgc tccaaagctt aaagcctggg ctcaatcgcg 240
agaactcatg tggtagaacg ggagagccca ccattacaaa ctgtgctttg acttccatat 300
gtctgccccat aacactcgag 320
```

<210> 2126

<211> 316

<212> DNA

<213> Rattus sp.

<400> 2126

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gaattcggcc aaagaggcct acagccaagg actaactacg accatgagat tggcagtgat 60
ttgcttttgc ctatttggca ttgcctcctc cctccgggtg aaagtgactg attctggcag 120
ctcagaggag aagaagcttt acagcctgca cccagatcct atagccacat ggctgggtgcc 180
tgacccatct cagaagcaga atctccttgc gccacagaat gctgtgtcct ctgaagaaaa 240
ggatgacttt aagcaagaaa ctcttccaag caattccaat gaaagccatg accacatgga 300
cgacagtgat gtcgag 316
```

<210> 2127

<211> 138

<212> DNA

<213> Rattus sp.

<400> 2127

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gaattcggcc aaagaggcct acgagtgggt atggtgatga tgatgggtgt ggtgattatg 60
atgataatga tggatgatgac cacagtgatt gatctgagag gtgctgactg gtgcgaggca 120
ggtctagaat tcaatcgg 138
```

<210> 2128

<211> 395

<212> DNA

<213> Rattus sp.

<400> 2128

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gaattcggcc aaagaggcct actgtcgggc aagtgcatt ctagactgag catggttttc 60
tggaaacagat gatcttggat gatcaggaat ccgaggacct ggaccgtcca tcattgagcc 120
accagtttgc tggagcacag acatgggtgt tctagcactt ccaaggggtt ctagcattcc 180
aggtgatcta catcgggtcaa gaggagtggg tgacatgcta ggacgactaa aacagctcat 240
tctagagcta ctaagtgcga caggaggtgt ccgagatcca gaatgattcc ttgttgctgg 300
aggagtggca gaacgtgagc gatcagaact acttcagat gcagaccgcc tacggatggc 360
tggaggagat cttgttaaag atcgcttgcc tcgag 395

```

<210> 2129

<211> 323

<212> DNA

<213> Rattus sp.

<400> 2129

```

gaattcggcc aaagaggcct agcaaaatga agtttgttct gctgctttcc etcattgggt 60
tctgctgggc tcaatatgac ccacacactg cggatgggag gactgctatt gtccacctgt 120
tcgagtggcg ctgggtgat attgccagg aatgtgagcg gtacttagca cctaagggat 180
ttggaggggt gcaggtctct ccacccaatg aaaatattat aattaataat ccatcaaggc 240
cttggtggga aagatatcaa ccaatcagct acaaaatttg ctcaagggtc ggaaatgaaa 300
atgaattcaa aggatggctc gag 323

```

<210> 2130

<211> 386

<212> DNA

<213> Rattus sp.

<400> 2130

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gaattcggcc aaagaggcct aagaacgccc tgggccttcg gaaaggagtg attgattagt 60
acttgcaagt ttaggtgact ttaaggagaa ctaactaatg tatactattg agggaggagg 120
aagagcatta cagagtttcc agcagcagca ggaagctttt ggtagtttg gaaatggatg 180
atagcattaa aataacagaa gcgcctccag gtctctgaag cttcagtccc ccagctgaaa 240
gccagaaaaag actaagccca ctaagccttt tgatcccttt ggaagcaag aactttcctt 300
ccctgggggtg aagactctcc tcagaagatt tctgtctct gcctatgta caagaggaat 360
caaaaccaag acagaagagc ctcgag 386

```

<210> 2131

<211> 202

<212> DNA

<213> Rattus sp.

<400> 2131

```

gaattcggcc aaagaggcct acaaaactaaa aaattcttta gccacttct tacgcgaagg 60
aaccctcatc tcactaatc ccataactat catcatcgaa actatcagcc tatttattca 120
accgatagca ctagcagtag gactaacagc aaacattaca gcaggccatc tattaatgca 180
tctaatecga ggagctctcg ag 202

```

<210> 2132

<211> 386

<212> DNA

<213> Rattus sp.

<400> 2132

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gaattcggcc aaagaggcct aggagagggt tttctgacat ccagtgttgc agagtggggg 60
ggaggggtcaa acccagtcac ctccaggatc ttgctgagca gaaggacaca aggagaggcc 120
agtggggcct gactccaggg aaattgatac cattaagcat gtttggtaat tggatcgta 180
ttagttttat caaagggtga taaagtcaat tctgtgattc tgagaatgtt aaataatgac 240

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tataataaaa ttttaatega attagaattc ttgccagaga gggaaagga agtgaggaaa 300
gccacgggtgc cgtctccga gtgtcatcga ggtcaggggt ggggtcagt cctactcagg 360
agctccttgt tggcagggac ctcgag 386

<210> 2133

<211> 403

<212> DNA

<213> Rattus sp.

<400> 2133

gaattcggcc aaagaggcct agcgcgggt cccaccttcg tcgcgcacac tggctaggcg 60
agctcgcayc gctctacgac tctgcggctc ggaactcggc ccgcagggct gaacaacccc 120
actgtggtat ttaaaaaag aaagaaagaa agaaagaaga catttccttg ctttttcttc 180
ttttcttctc tttctcgcac ggtttttctac cgtagtggct agcggagcgc gcagccttcc 240
caaggcagcc ctggttggct tgcctatcct catctggctt ataaaagttt gctgagtgc 300
gtccagagggt ctgcgcggct cgtccctcgc gctggcggaa gggggtgacg ctgggcagcg 360
gctaaggagc gcgccgcagg ctctggcggg ctttcggctc gag 403

<210> 2134

<211> 343

<212> DNA

<213> Rattus sp.

<400> 2134

gaattcggcc aaagaggcct aaagaaacga atttctctac cagatcggaa ggaagaaaa 60
tccttcaagt agaaggggag ggggtgtgtt gtgttttcta tttttttata taaggctctc 120
ttgtataacc ttggttggcc tggaccacac gagatctgcc ggcctctgcc ttacagtgcg 180
gagataaaaa gcacacacca ccattgcacca ctattttggg tgggtgtggg tacttttgtt 240
ttgttttgtt ttgttttgtt ttgagacggt ttctctgtgt agccctggct gtcctggaac 300
ctactctgta gaccaggctg gtcttgaact cagatccctc gag 343

<210> 2135

<211> 150

<212> DNA

<213> Rattus sp.

<400> 2135

gaattcggcc aaagaggcct acccccact agaaaaattg ttatgggtat tggcatttat 60
ttattcatca tatacttatt agggcagcca aaaaagtcta atgcctctgt catgtattac 120
cacagaaggc aagcccagca caaactcgag 150

<210> 2136

<211> 344

<212> DNA

<213> Rattus sp.

<400> 2136

gaattcggcc aaagaggcct acttggtaga ttatccaaac atcgtcaaat ttctatgcta 60
tttattttat ttcttttttt tttttttttt gccaaaagat gatttgtgtt tgtttgaant 120
ctgagacact gtgttccatt tgggtgttct gtccaatgc atcctcattg tcttggaac 180
ccttccccag atgtccact acatgtcagg tccaggagga tgactcgcaa gtctacag 240
tttcattacg aaaacttcaa ggttccagt ggaacctgg aaaccgtcag ctgatgtca 300
ccaaatgtc gcccttacc cctgcggggg cctggcagct cgag 344

<210> 2137

<211> 525

<212> DNA

<213> Rattus sp.

<400> 2137

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gaattcggcc aaagaggcct agcctctttg gccggccaaa gaggcctagg tcgtggggta 60
agaacagtct gatccttggc cagtgttgaa ggctgggcgg tttttcagct ctataactgt 120
tttgccttct ctggaaagct cagtcacttc acagggtgtag tttcccacca cagcctcatg 180
ggtatccatt gtcaaagagg caatgccttt gagcaagtct gagaccgaga tttttgact 240
ggtaaagttt tgttctctag tagtgctatt tttatttcca tcatagatga aaatatacga 300
tttgttcaac ttccacttca caaacatttc atcgggtgctt tgggcttcca cattaaggac 360
tttgcaaggg atgaccacag cgtcattgca tgacgtgaac tctacagatt tgactttact 420
aagcaggagt tgagctgaac cgcagcagca ggagcccagc aacagcgccg ccgccaaggg 480
ccacatctcc gcgcgcgcgg gggctgcgcg cgcagggtgc tcgag 525

```

<210> 2138

<211> 198

<212> DNA

<213> Rattus sp.

<400> 2138

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atccaccatt ctctgtggaa tctgctttcc atcaaaagatc tcttgacagaa ctgggataac 240
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<213> Rattus sp.

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<212> DNA

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<400> 2142

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aagagtagct tcatggtact agatgctaga ggacgtcact tgcacagatg atcagagtaa 300
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<211> 553

<212> DNA

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<400> 2143

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atcaagggtg tgcatacccg caaagccacc aagtatctga aggatgtcac tttaaagaag 180
cagtgtgtgc cattccggcg gtataatggt ggagttggta ggtgcgcccc ggccaaacag 240
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cacatccagg tgaacaaggc tcttaagatg cgcagacgga cctacagagc tcacggcccg 420
attaacccat acatgagctc cccctgccac atcgagatga tctcactga gaaggaacag 480
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<212> DNA

<213> Rattus sp.

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ccacactggg gtaccacca ggaatgcttt agtgcctgtg ggcaaggggc aaggttgagg 180
gaagggtttg aacatttgag aatggttaat aaaattgagc cgattgatgg tgggagagac 240
ggcgtaatgg ttaagaaaga gtatgtacag ctgccaagga cccagttttt gttttcagca 300
acctaagttg tttgtacett agaactgtct gtaacttggg cagctcataa atgctgttaa 360
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 <212> DNA
 <213> Rattus sp.

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 aagagaaagg caaaaaagaa aaagaaagac aggaaattga gaaagaacgg gagagagaac 180
 gggagagaga gagagaacgg gagagagaac gggagcgtga aagagagaaa gacaagaaaa 240
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<210> 2148
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 <212> DNA
 <213> Rattus sp.

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<211> 563

<212> DNA

<213> Rattus sp.

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 gcagcggatc tcagtgggtg ggaacgatga tgactcctct accctcacca tctacaacgc 420
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atctggggac acagaggatg gtcagcaaat gcccctgaaa acacccatcc cacgaggcat 240
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<212> DNA

<213> Rattus sp.

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<213> Rattus sp.

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tgtgtatgag tttttcttac gtttcttggg atctccagat ttccagccga atatagccaa 300
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<212> DNA

<213> Rattus sp.

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cctctgggc tccacccaac tccatctcct gccctgggtc cccatgctcc attaatgcct 180

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ccgtccccac cttcacaaagt cctgcctgcc tctgagccaa agcgccatcc ttccacccta 240
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 <212> DNA
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 gtgcaattca ctcgag 316

<210> 2159
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 <212> DNA
 <213> Rattus sp.

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 <212> DNA
 <213> Artificial Sequence

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<400> 2160
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21

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 <212> DNA
 <213> Artificial Sequence

<220>

<223> linker sequence

<400> 2161
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<210> 2162
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<211> 24
<212> DNA
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<400> 2165
acggcctctt tggcctcga gaca 24

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24205

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C07K 14/435; C12N 15/12

US CL : 530/350; 536/23.5

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 530/350; 536/23.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EMBL5, Genbank, USPAT issued, EMBLest58, Genbankest111

search terms: sequences corresponding to SEQ ID NO: 48, 79, 267, 531, 724, 802, 993, 1192, 1333, and 1416

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim N
X	WO 98/42738 A1 (HUMAN GENOME SCIENCES, INC.) 01 October 1998, pages 207-208, positions 402-730 of SEQ ID NO: 54 relevant to positions 21-350 of instant SEQ ID NO: 993.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information, (Bethesda, MD), Accession number C06368, TAKEDA, J., 'Direct Submission,' 11 October 1996, positions 16-372 relevant to positions 29-385 of instant SEQ ID NO: 1416.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA491109, NCI-CGAP, 'National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index,' 15 August 1997, positions 1-136 relevant to positions 159-24 of instant SEQ ID NO: 1333.	4, 8

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

Special categories of cited documents:	
A document defining the general state of the art which is not considered to be of particular relevance	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
B earlier document published on or after the international filing date	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
L document which may throw doubts on priority claim(s) in which is cited to establish the publication date of another citation or other special reason (as specified)	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document combined with one or more other such documents, such combination being obvious to a person skilled in the art
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	*A* document member of the same patent family

Date of the actual completion of the international search

11 FEBRUARY 2000

Date of mailing of the international search report

29 FEB 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

JOHN S. BRUSCA

Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24205

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim ?
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD) Accession Number AA442056, HILLIER et al, 'WashU-Merck EST Project 1997,' 02 June 1997, positions 60-226 relevant to positions 21-187 of instant SEQ ID NO: 1192.	4, 8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24205

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 64(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-8

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24205

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack Unity of Invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows:

The nucleic acids of SEQ ID NO: 1-2159 and the corresponding polypeptides encoded by the nucleic acids of SEQ ID NO: 1-2159.

The claims are deemed to correspond to the species listed above in the following manner:

All claims are drawn to the species indicated above.

The following claims are generic: 1-8

The species listed above do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each species is drawn to a different nucleic acid or corresponding encoded polypeptide. There is no disclosed relationship between the sequences of each individual species.

Restriction to a single species has been waived sua sponte and the Applicants are permitted to have ten species examined without payment of additional fees. The Applicants representative Suzanne Sprunger elected telephonically on 01 February 2000 to have the sequences corresponding to SEQ ID NOS: 48, 79, 267, 531, 724, 802, 993, 1192, 1333, and 1416 searched.